

CONNECTIONS TO THE CITY :

A Spatial Structure for New Perceptions of Harvard Square

By Josef Yul Chalat, Bachelor of Arts, 1982
Wesleyan University, Middletown, Connecticut

Submitted to the Department of Architecture in partial fulfillment of the
requirements of the degree of Master of Architecture at the
Massachusetts Institute of Technology

June 1990

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ABSTRACT

This thesis proposes that a building in a dense urban environment be used as an element that constructs the space of the city. A site was investigated to see how form could make the relationships between different parts of Harvard Square in Cambridge, Massachusetts more explicit. The site was found to be a link in a sequence of public spaces that connects Harvard Square to the river. This approach works with the built environment as a field of spatial forces.

Thomas Chastain, Thesis Advisor
Assistant Professor
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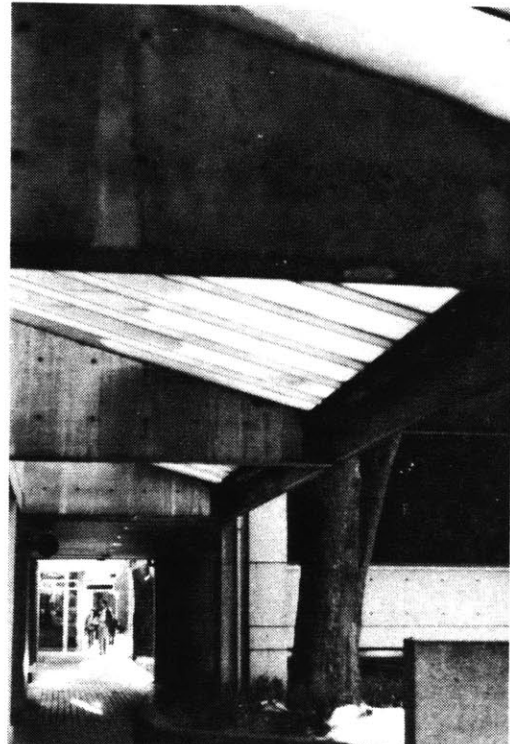
Acknowledgements:

I would like to specially thank Tom Chastain for his unwavering dedication to the art and craft of teaching about what he loves, and Maurice Smith for thinking about the things he thinks about.

Special thanks to my friends Denise Ferris, Sue Dunbar, Craig Wittte, and Sabina Wietzman for their love and support and inspiration.

And to Erin and Z.

This thesis is dedicated to my mother, Marion, and my brother, David



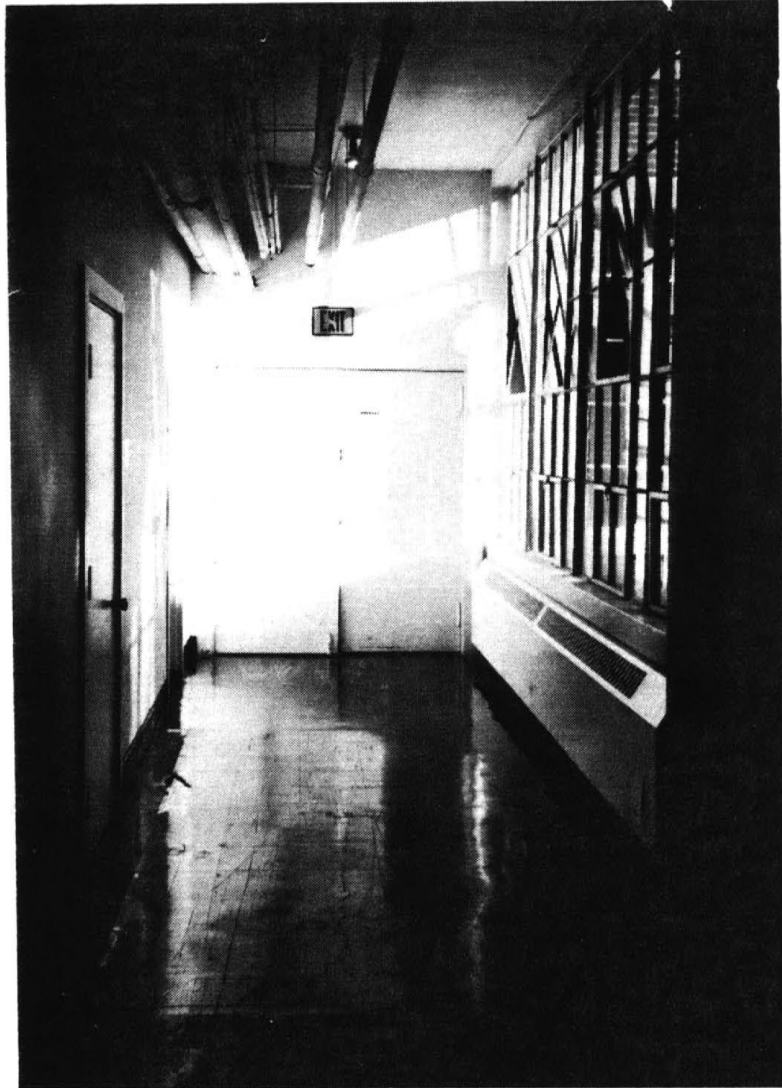
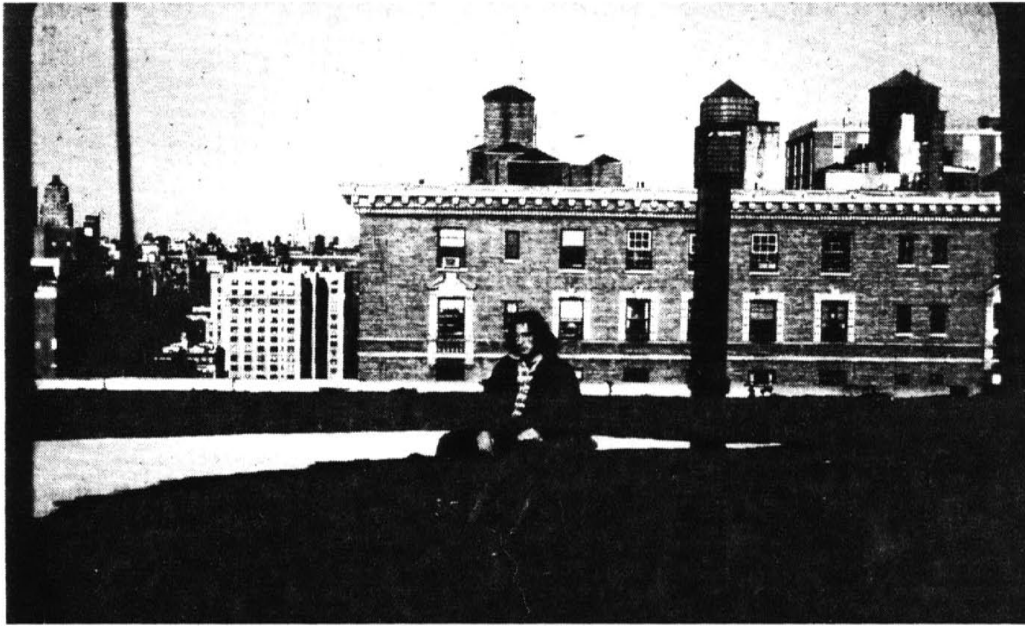
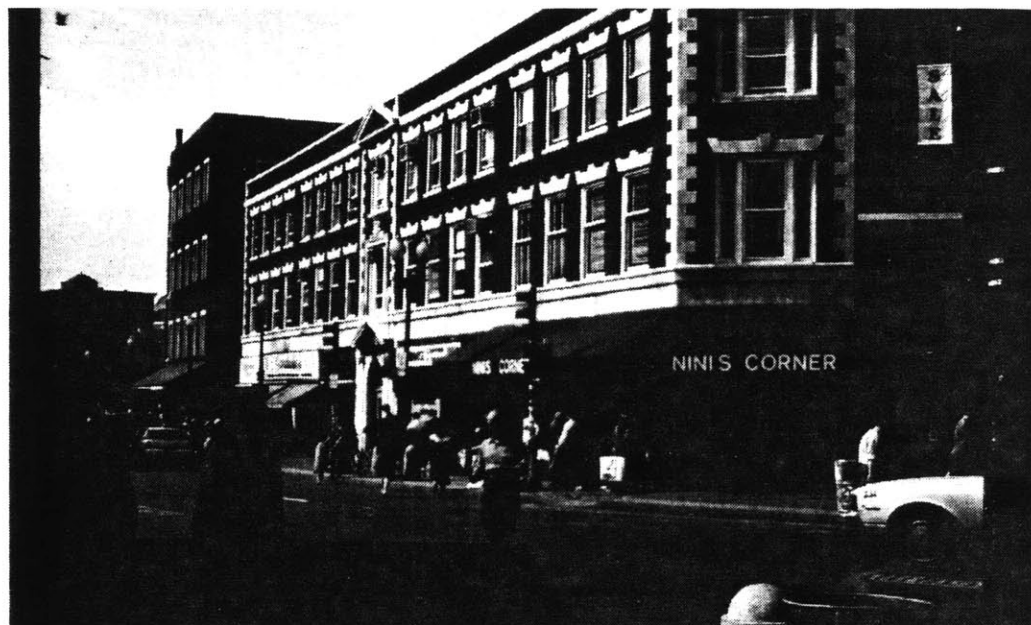


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**Introduction: The Construction of
Space in an Urban Context.**



*" The feeling of connectedness is
the basis for every form of
community.*

Herman Hertzberger

Introduction:

This thesis investigated the possibility of using a building as an element that structures urban space to engender new perceptions of the Harvard Square area in Cambridge, Massachusetts. I was primarily interested in making the relationships between the many well used public spaces more coherent. I especially focused on the relationship of Harvard Square to the Charles River, which despite its physical proximity is not really perceptible as part of the space of Harvard Square. I took the position that it is the "job" of the urban spatial structure to make connections between places in the city understandable and that it permits us to "know our address" at many different scales.

This question arose from my initial desire to understand what it means to build in a context. The current trend suggests that if one makes a new building look vaguely like all the other buildings around it by using similar materials, forms or details than it will blend into its surroundings and nobody will get too upset by it. The Harvard Square area is a diverse, kaleidoscopic urban environment, with a wide variety of people, goods and services. One would be hard pressed to define a set of building characteristics that were typically Harvard Square. A large variety of types, materials and styles are represented here, from colonial brick and clapboard, to ornate Beaux Arts stonework, modern concrete and glass, and post modern buildings referencing everything in the neighborhood.

These buildings all work together to structure the space of Harvard Square in a very exciting and dynamic way. I will argue that to build in context necessitates understanding how the spatial structure of an urban environment defines the relationships of people in space, and that

one intensifies, transforms, or inadvertently destroys, these relationships with each new intervention.

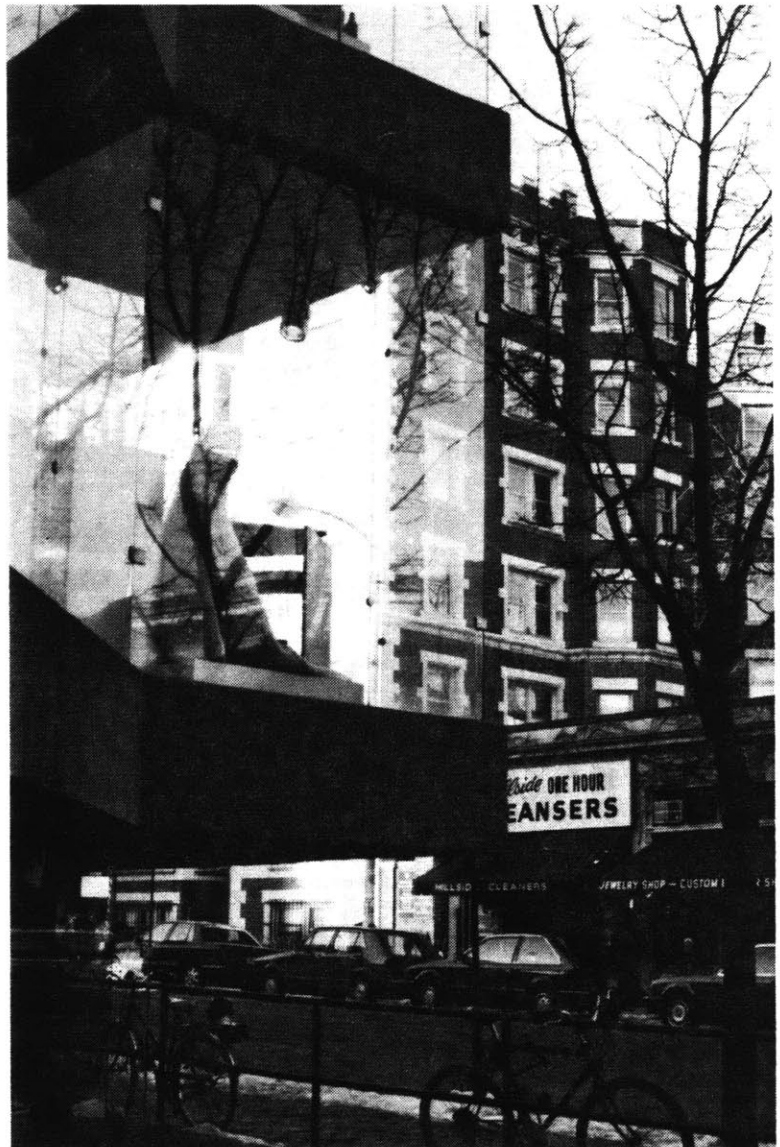
This suggests that a building might have an agenda about it's in the urban space that is independent of the program of the institution that will inhabit the building. However, one could understand a building as simultaneously defining a meaningful urban structure, as well as defining a meaningful relationship between the inhabitants of the building and the city. The row-houses of Boston's Back Bay do this exactly, They structure and articulate an urban space and define an institution of dwelling in relation to the urban space they create

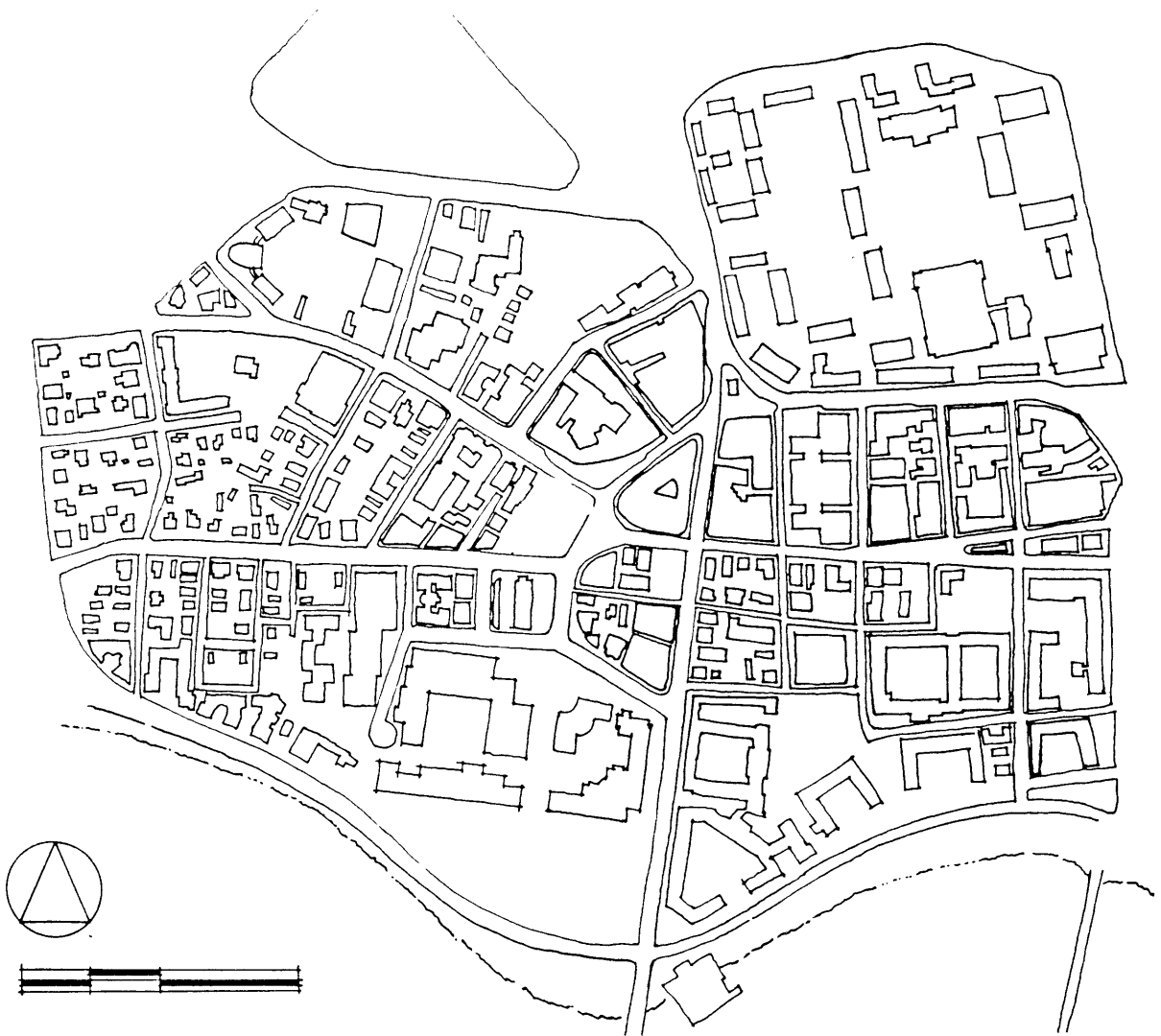
"The existential purpose of building (architecture) is therefore to make a site become a place, that is to uncover the meanings potentially present in the given environment"

C.N. Schultz
Genius Loci

One needs a way of investigating the potential relationships latent in a site that may suggest something other than a building be built, for how is one to discover that a site slated to have a building should in fact be a park, and vice versa? Paul Rudolph has suggested that it is not simply the job of an architect to solve building programs, but also to create architectural programs for a site. Many of my investigations in models and drawing were experiments to understand what sorts of relationships in the city might be made apparent by particular forms in the site. I have include them in chapter 4, not because they were necessarily successful in leading me to a building, but because I think they may represent an important step in moving from a diagrammatic understanding of what the formal behavior may be in a site, to a construct that organizes positions and dimensions of space and material in a coherent and harmonious way

Harvard Square: a Spatial Experience



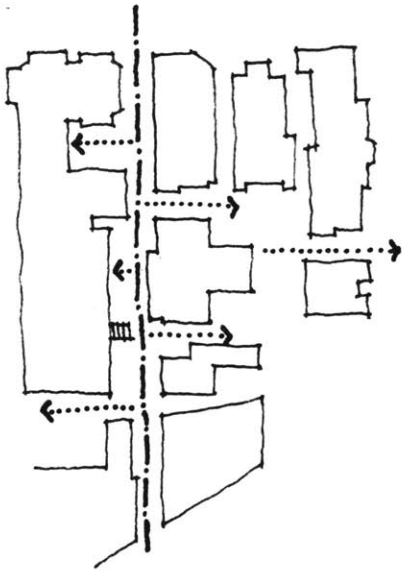


Childhood.

As a child in New York City I used to wander about with my head craned up to observe the overly ornate beaux-arts building facades festooned with cherubs, gargoyles, Greek, Gothic and Romanesque balconies pediments, arches, and every other form of decoration known to mankind and pigeons. I imagined that I could move from ledge to ledge, inhabiting them like spiderman. Now I realize that these buildings give structure, dimension, and rhythm to the vertical canyons of New York, and that these buildings articulated and defined the space I moved through everyday.

Harvard Square offers an intricate and complex experience of place, spaces of many sizes, many qualities of light and material, and many pedestrian paths that form a dense web of access. Each visit with a camera yields a new surprise. This chapter has examined some of these places.



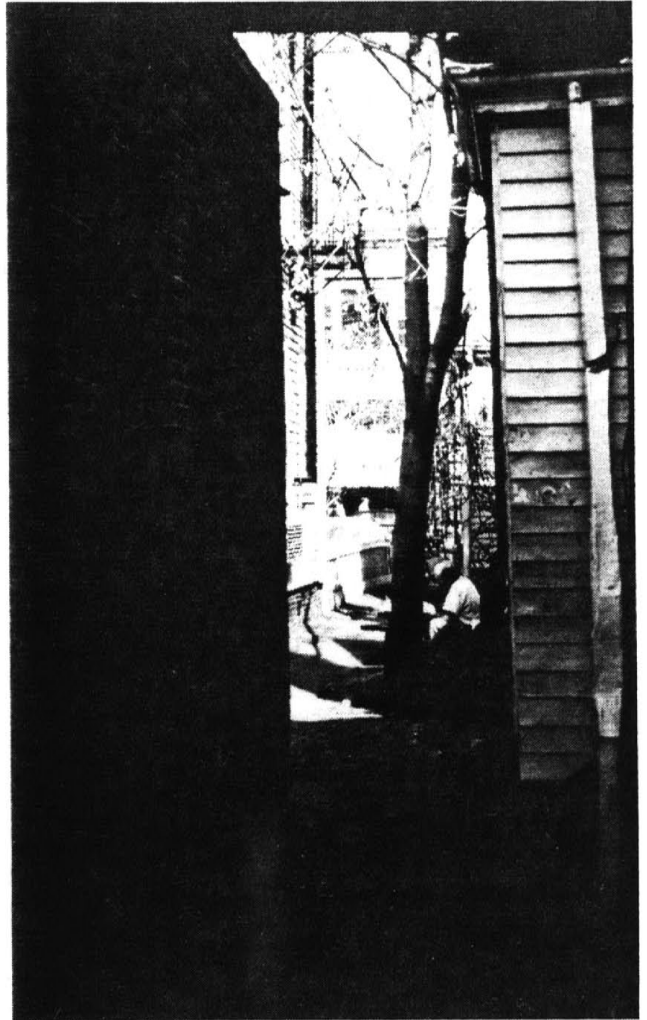


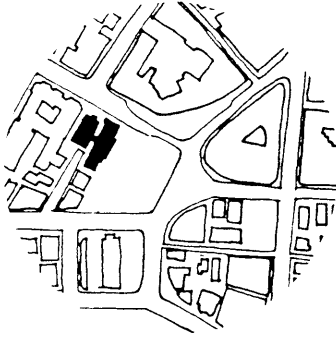


44 Brattle Street:

A pedestrian passage through the interior of this block builds alternations of sizes and light. A strong register is provided by the building edge in plan, and by a glass awning in section so that the movement through the block is contained vertically as well as horizontally.

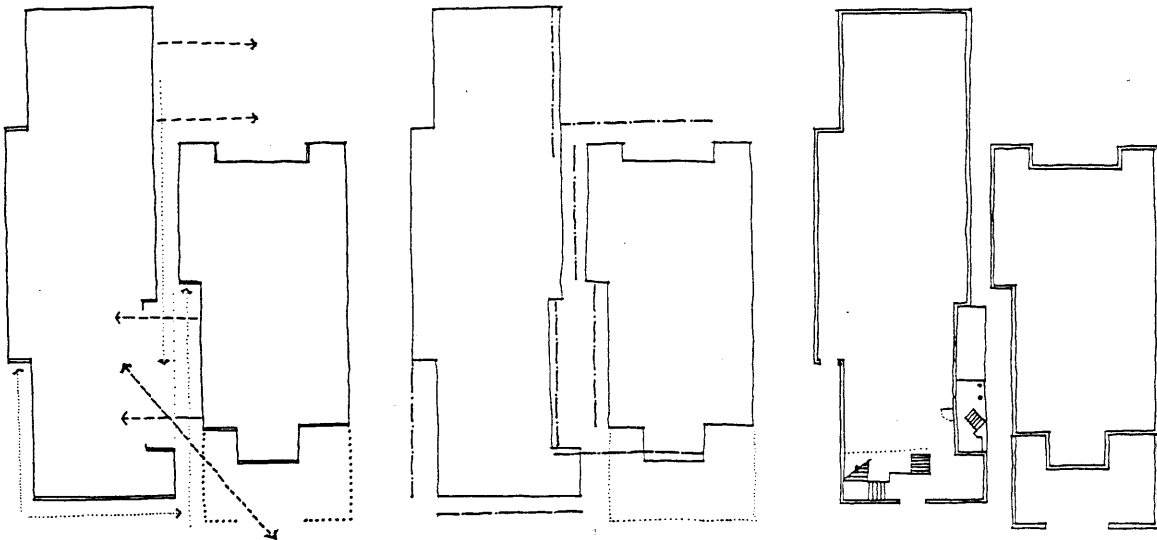


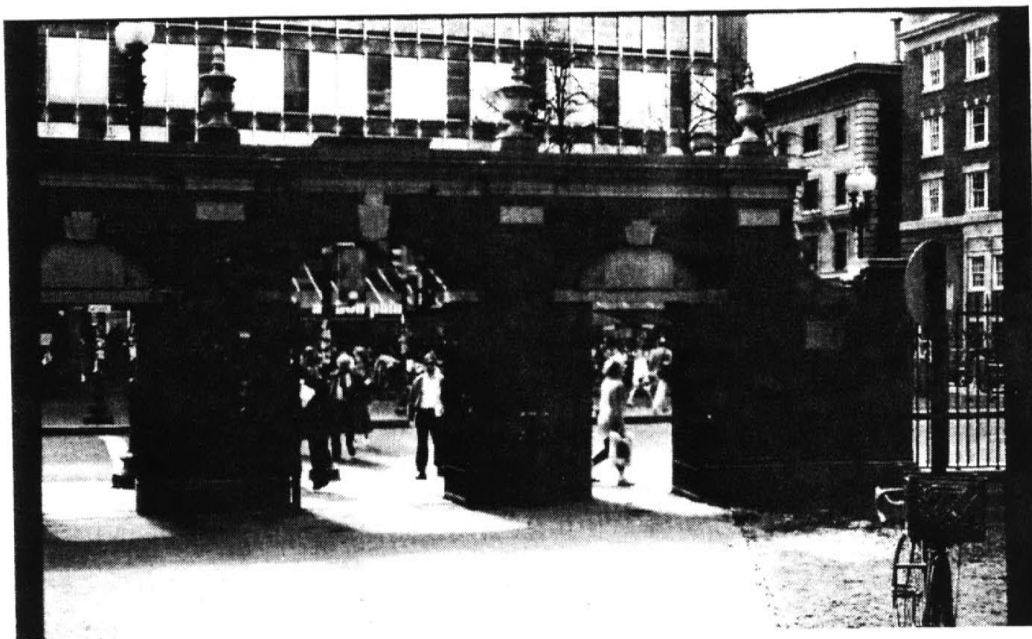


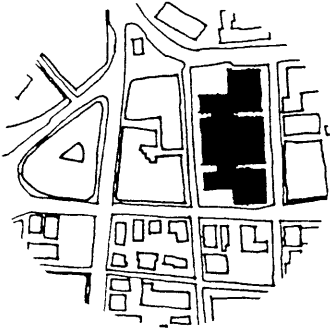


Cafe Algiers:

This is a well used passage despite its narrow dimension. The displacement of a surface on one building is registered by a continuous surface of the other building. Thus the movement through is articulated yet understandable.

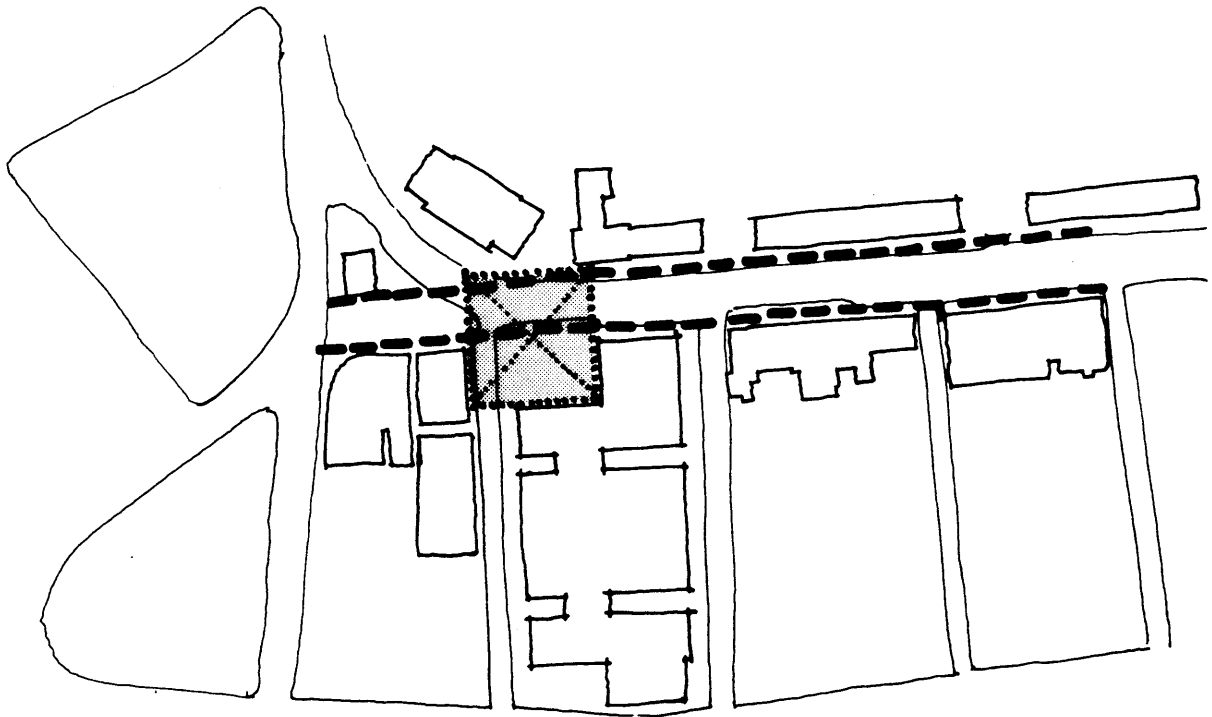


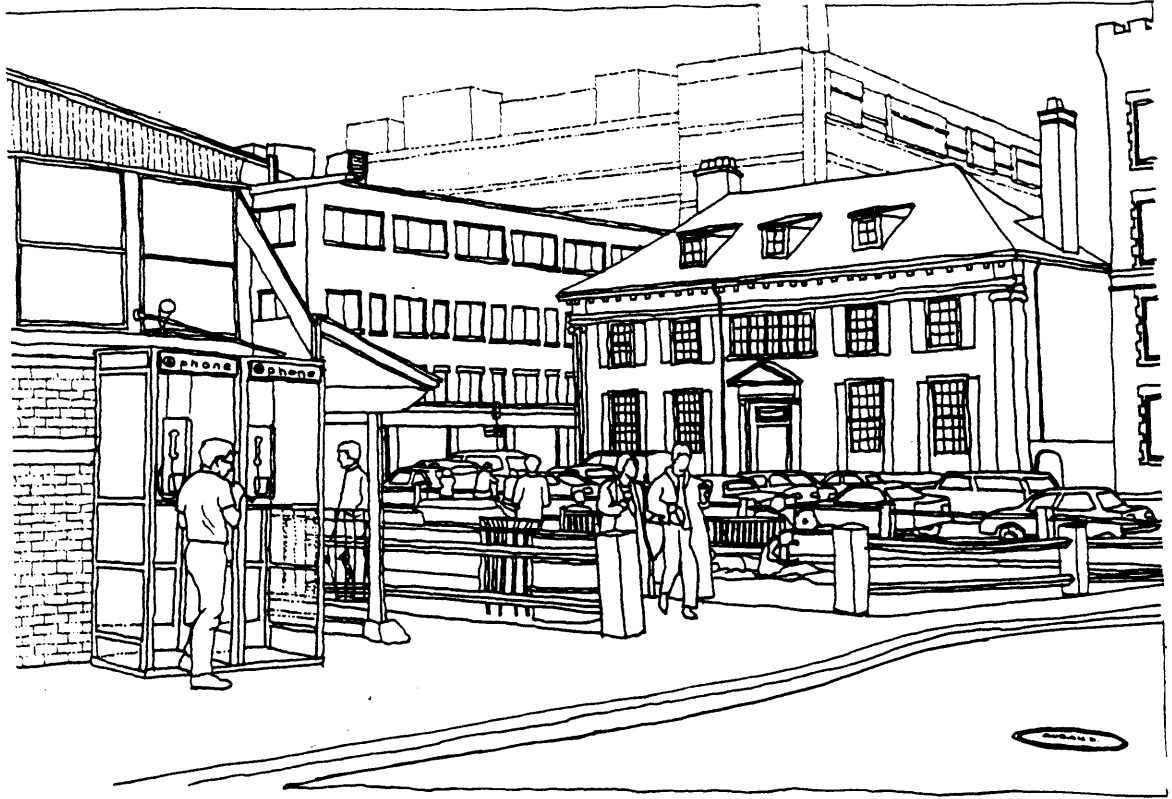




Holyoke Center:

This building and its neighbors define a stabile territory in plan that includes Massachusetts Avenue, as well as the territory defined by the building stepping back from the street. This move builds an exchange between the containment of the public space and the continuity of the public access, and has resulted in one of the more well used and enjoyable places in Harvard Square.

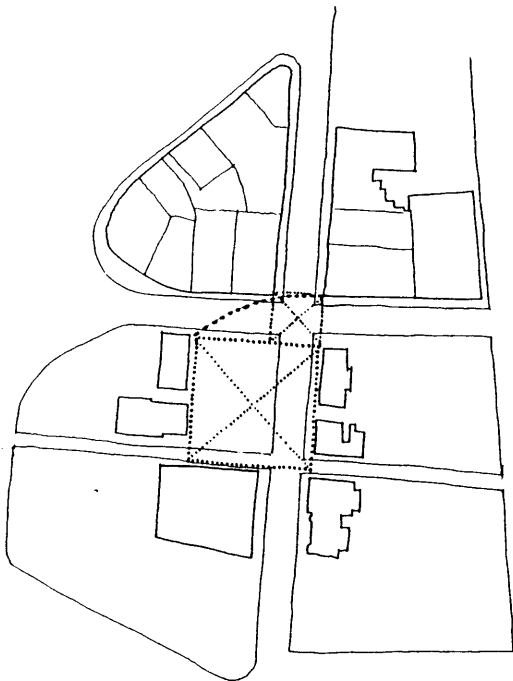


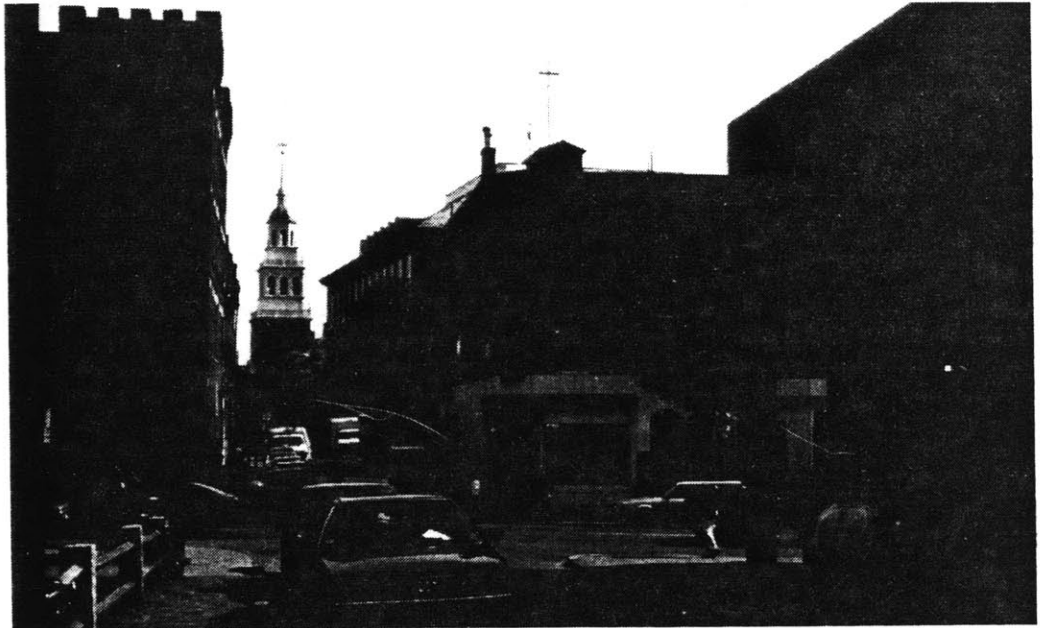




Winthrop Square:

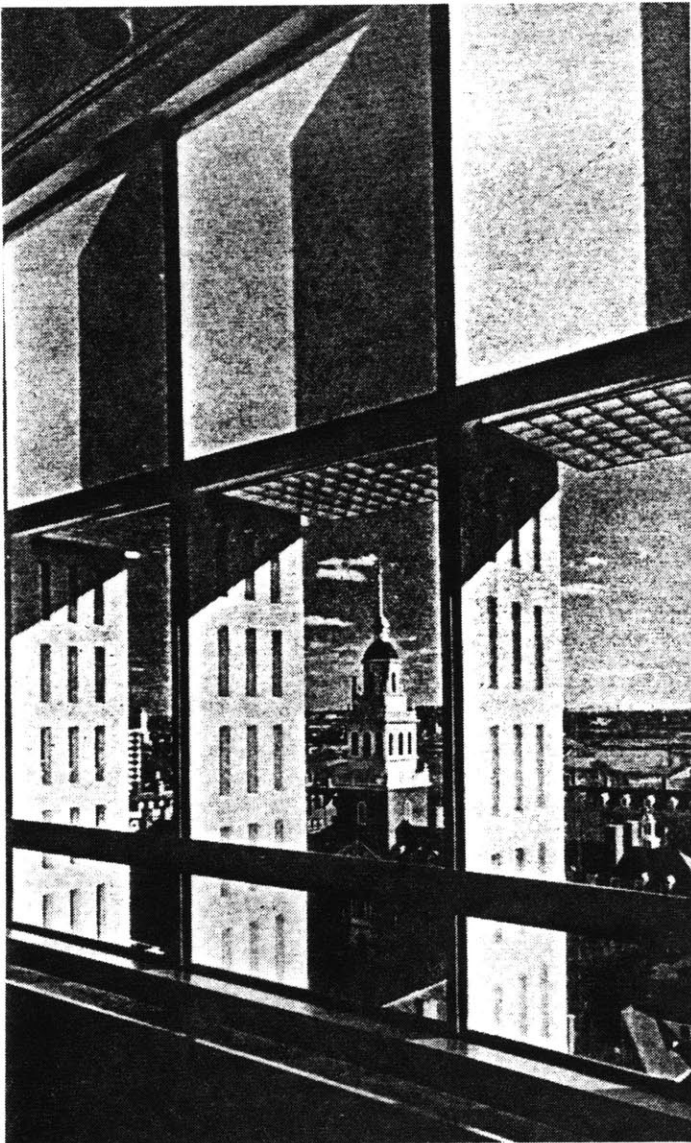
The space of the park and street are defined by the surrounding buildings. The length of the space is equal in dimension to the diagonal dimension of the square inscribed in the width of the space. The spatial behavior is similar to that of the Holyoke Center, the containment of the public space and the access are defined by the stable territory.

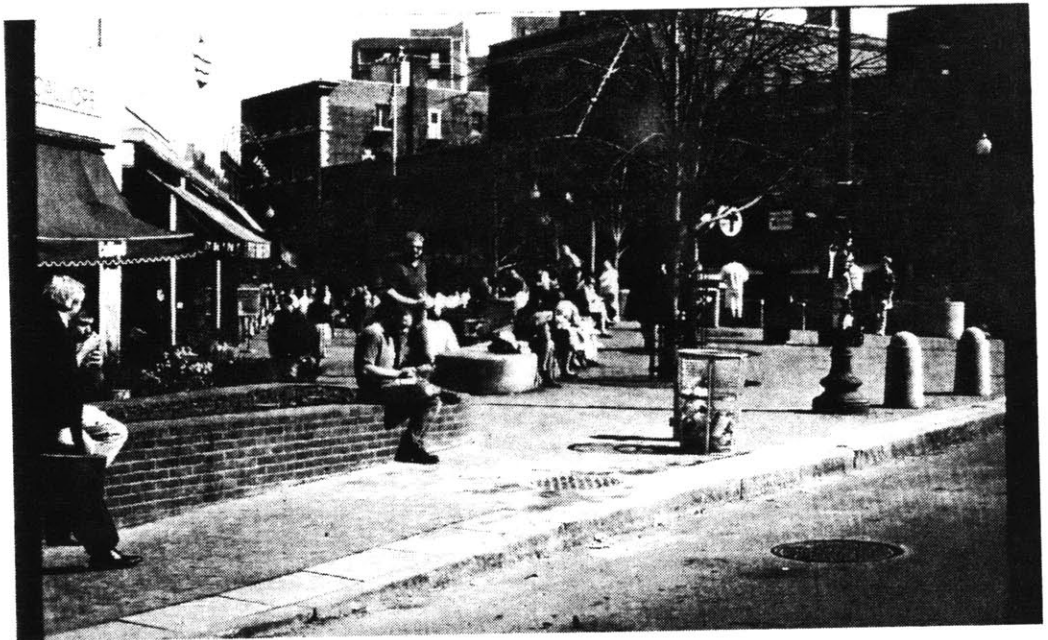




Towers, Cupolas:

These are elements that can help us stay oriented in a city .



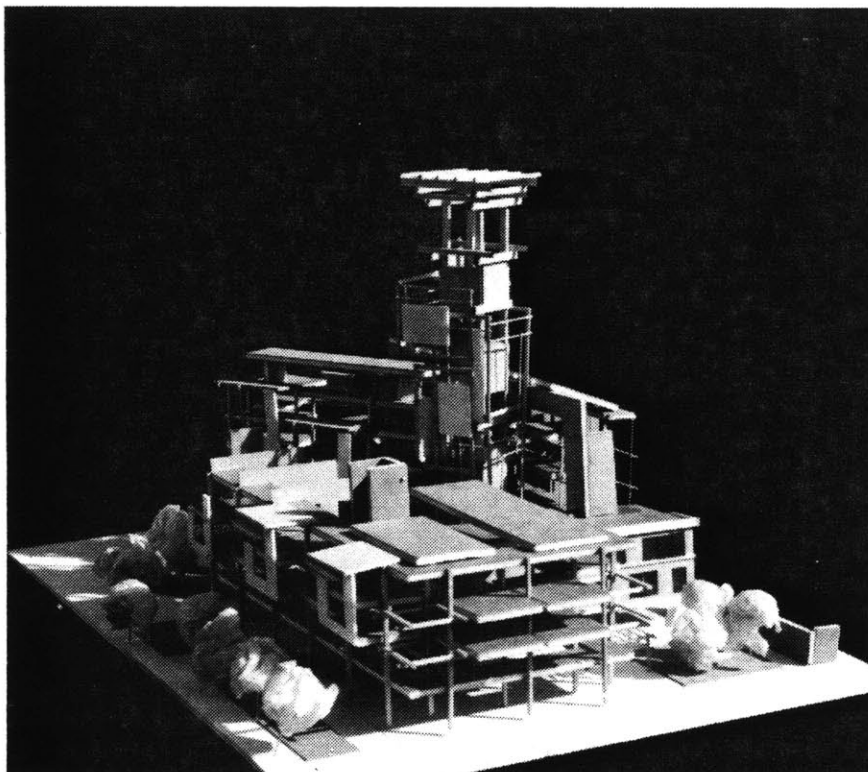


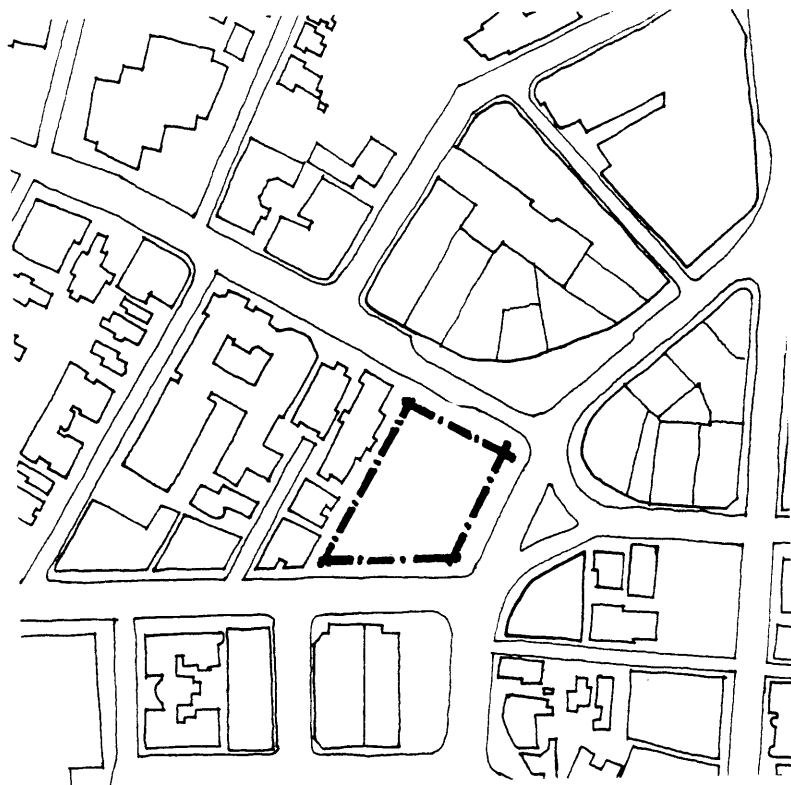
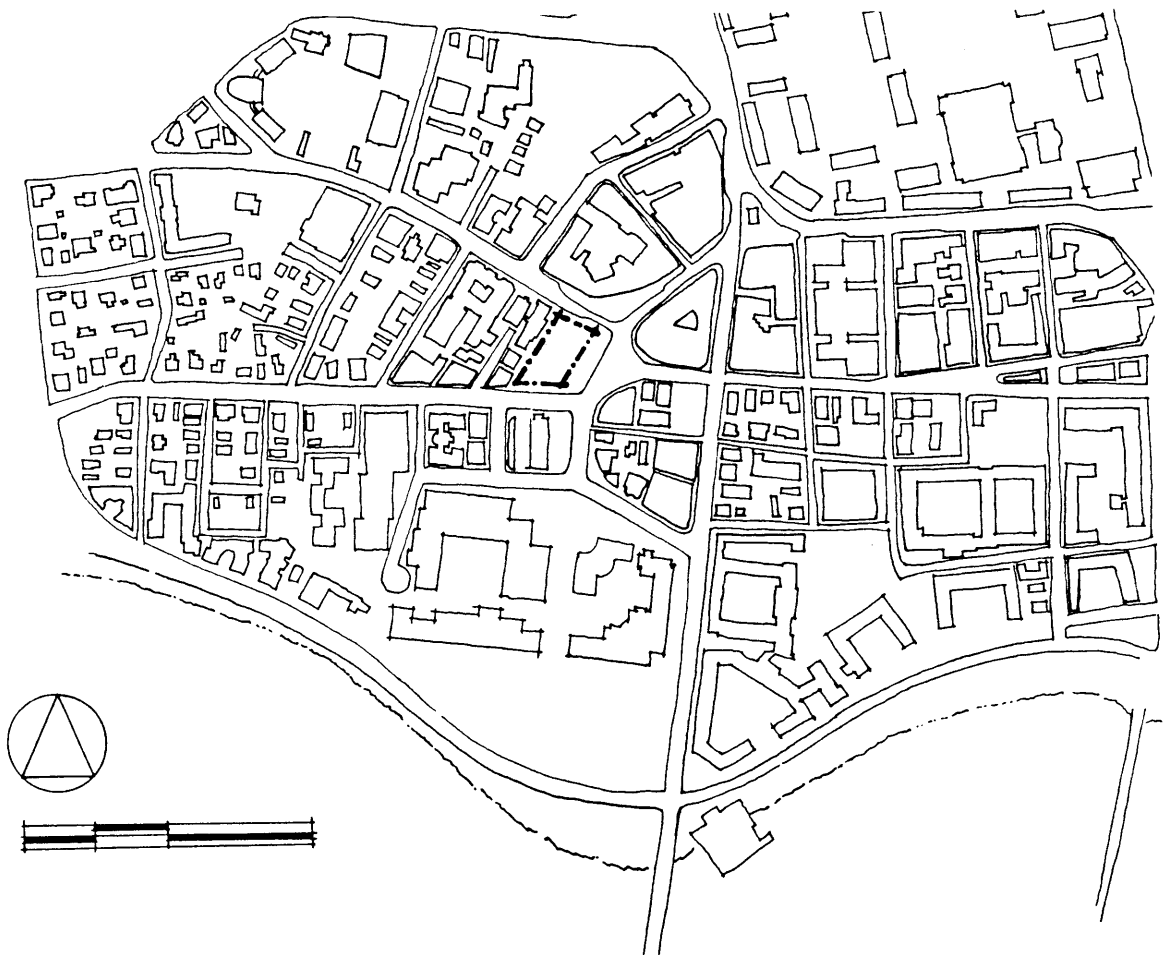
The T Stop Plaza:

The extremely generous dimension of the sidewalk here supports intensive public use.



A Design for New Perceptions of Harvard Square

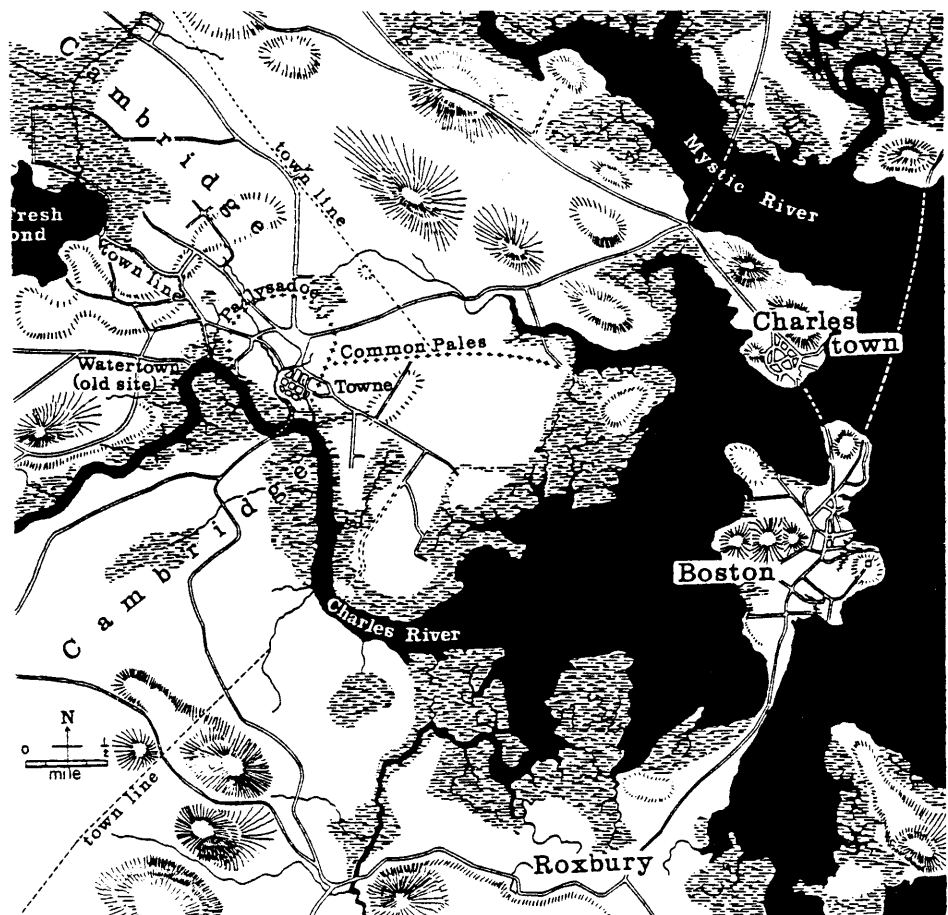




The Site:

The Site for this project is located in the Harvard Square area on the end of the block defined by Brattle, Elliot, and Mount Auburn Streets. The Site is approximately 150 feet wide with a short edge of 200 feet and a long edge of 250 feet. This space is very poorly defined by the buildings surrounding it. Each presents a convex face to the site. The photo makes it apparent that this site is in need of a strong edge to provide a reference.

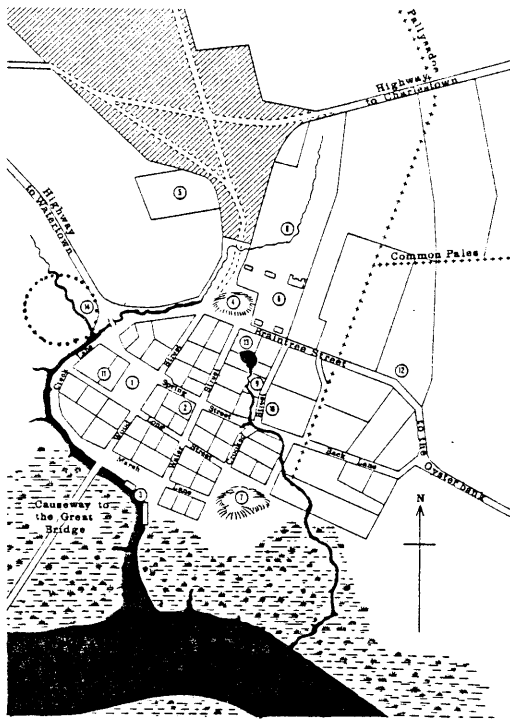




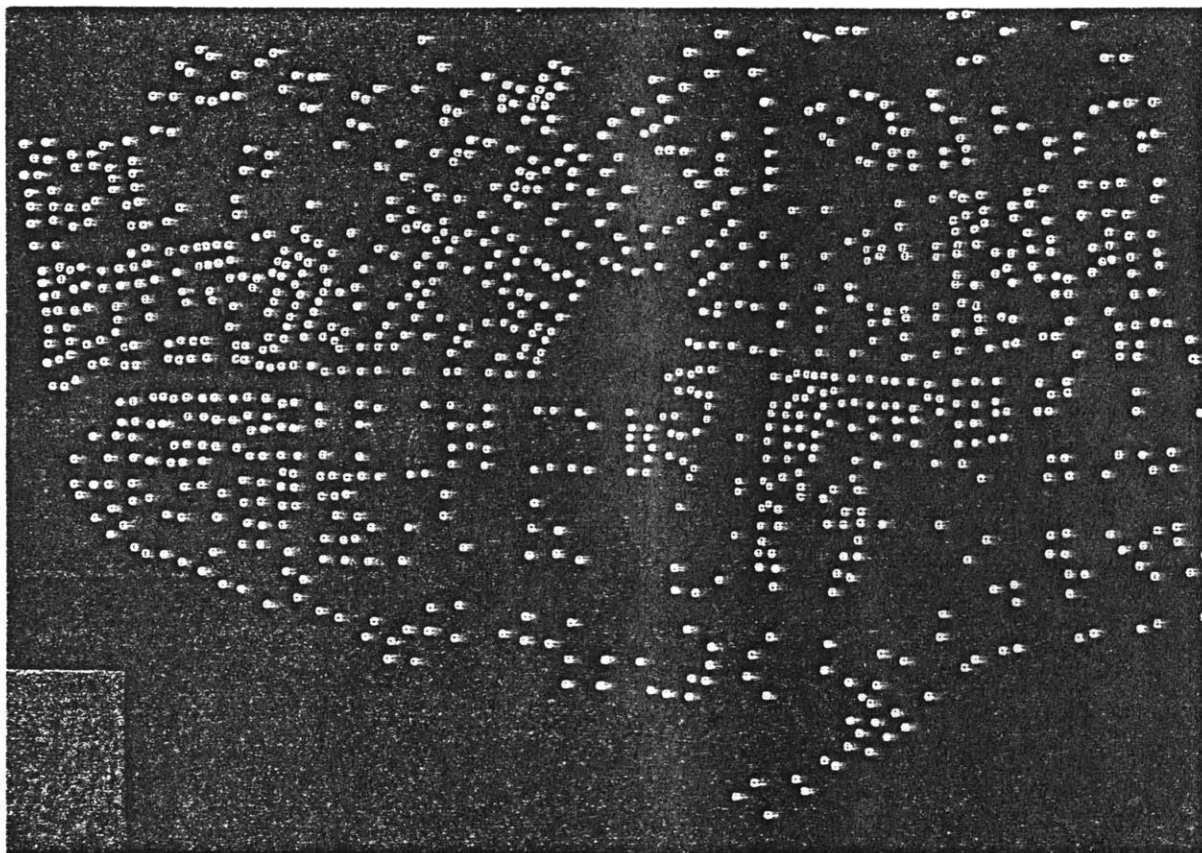
12. THE TOWNE IN 1670

History:

The morphology of the site is relatively unchanged from the original layout of the town, although the marshes have long since been filled and built upon. The tributary to the Charles River gave Elliot Street its curved shape. Though the brook is long gone the street retains this historic trace by virtue of its form. The site for this project originally contained the town spring.

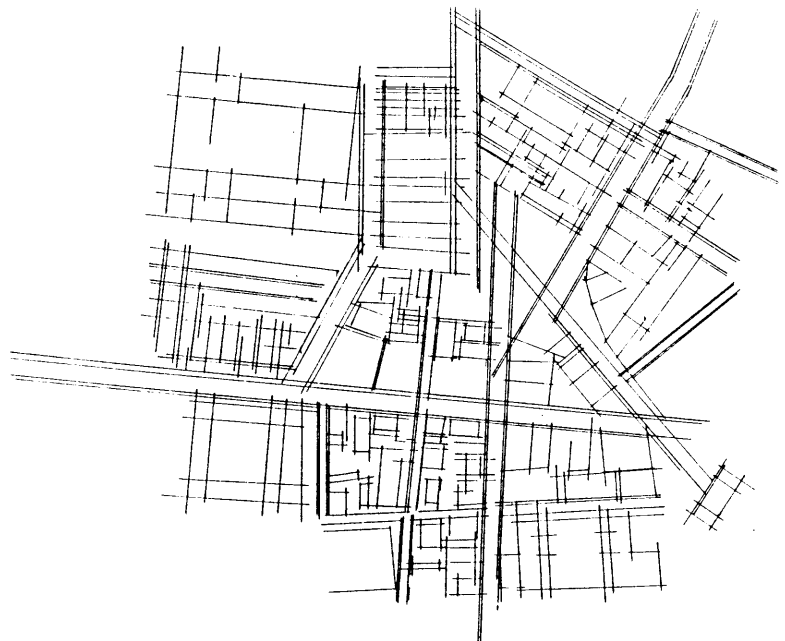


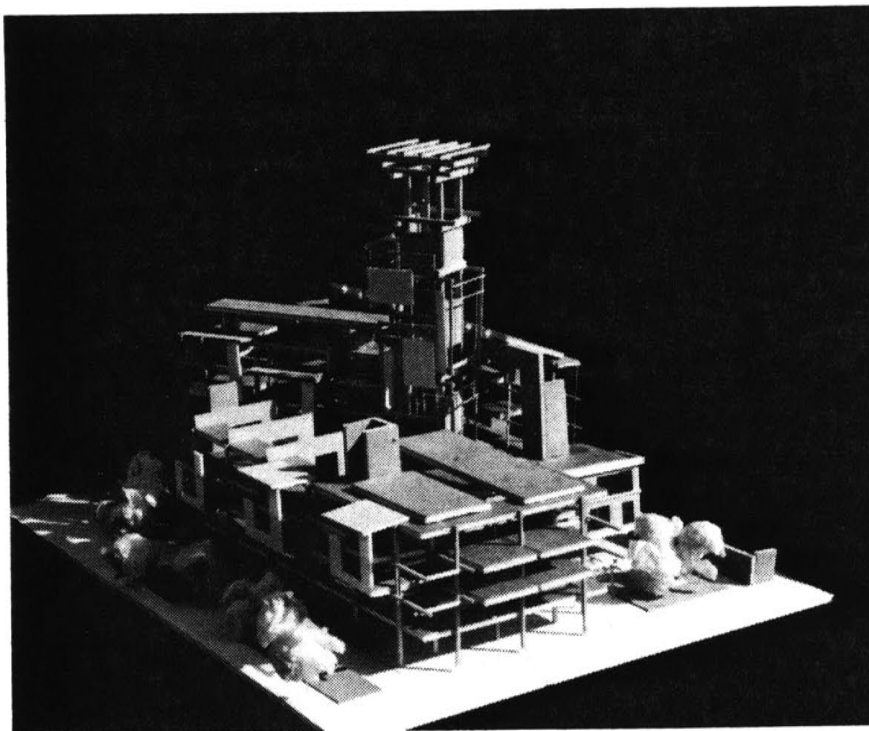
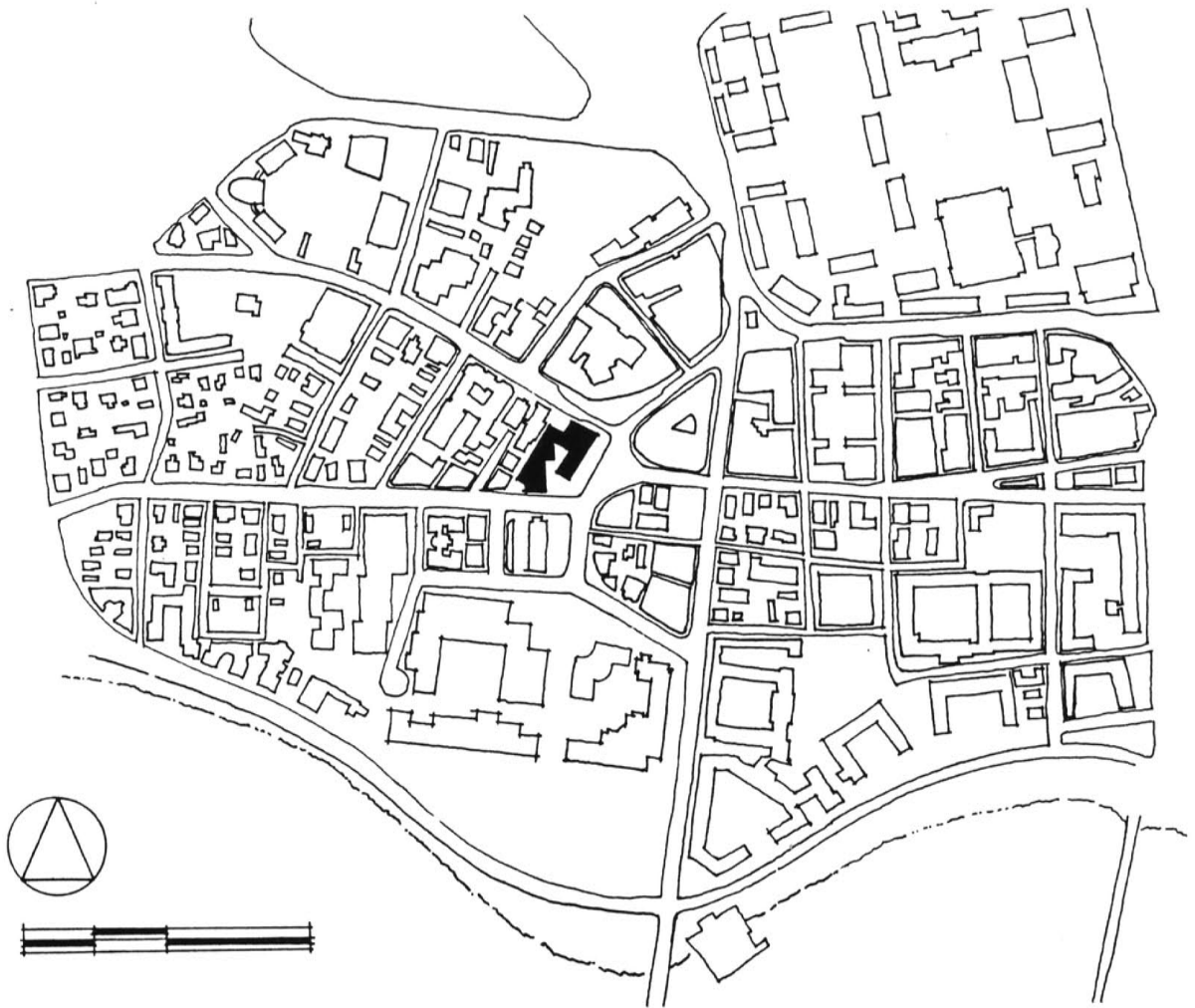
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|--|-------------------|
| 1. MARKET PLACE, 1635 | |
| 2. SITE OF FIRST MEETINGHOUSE, 1632 | |
| 3. TOWN WHARF AND FERRY LANDING, 1635 | |
| 4. WATCH HOUSE HILL; SITE OF LATER MEETINGHOUSES | |
| 5. BURYING GROUND | |
| 6. HARVARD COLLEGE | |
| 7. SITE OF PROPOSED FORT | |
| 8. BROOK FROM COLLEGE YARD TO CREEK LANE | |
| 9. FIRST SCHOOLHOUSE | |
| 10. FIRST JAIL | |
| 11. SECOND JAIL, 1681 | 13. BARRIT'S POND |
| 12. PARSONAGE, 1670 | 14. TOWN SPRING |



Site Study:

These exercises attempted to understand three aspects of the spatial context. First is a model in which the corners of each building are represented as a point. This builds a field of direction and dimensional articulation. The second exercise depicts the context as mass and void. The two in juxtaposition can each be seen to "structure" the other. The third exercise extended the edges of buildings in order to depict the multiple grids that exist in the site





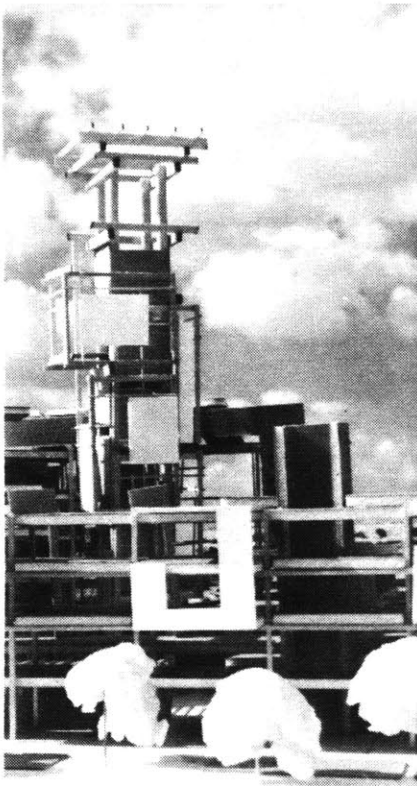
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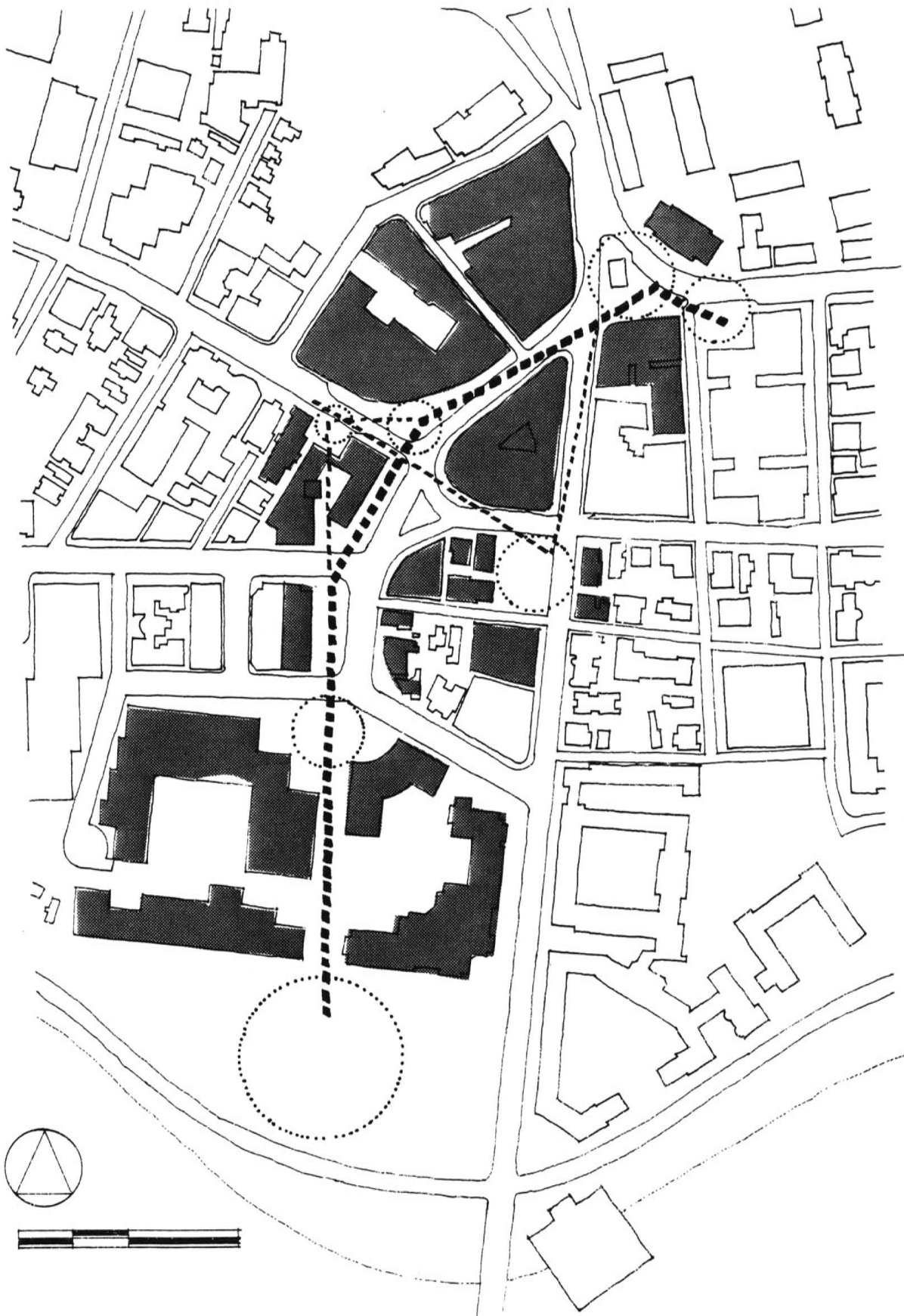
This building makes two propositions at the urban scale. First, it provides the piece that makes a sequence of public spaces that connect Harvard Square to JFK Park at the river very perceptible to the public. Second it proposes a tower to terminate several view corridors, to give some of the streets a stronger sense of orientation and containment.

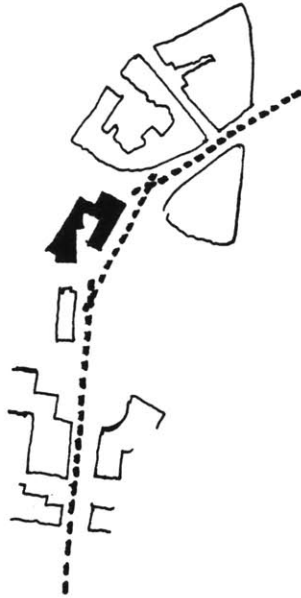
At the street scale this building provides a badly needed reference to an urban space in which the facades fronting the space all present a convex face.

At the scale of the block the design proposes two internal pedestrian movements, one that links with the established pedestrian alleys, and a second which provides a connection to the larger move towards the river.

Finally, the inhabitation of the building by the consortium of environmental groups suggests that the space in the edge of the building connects one to the city and other groups in the building.





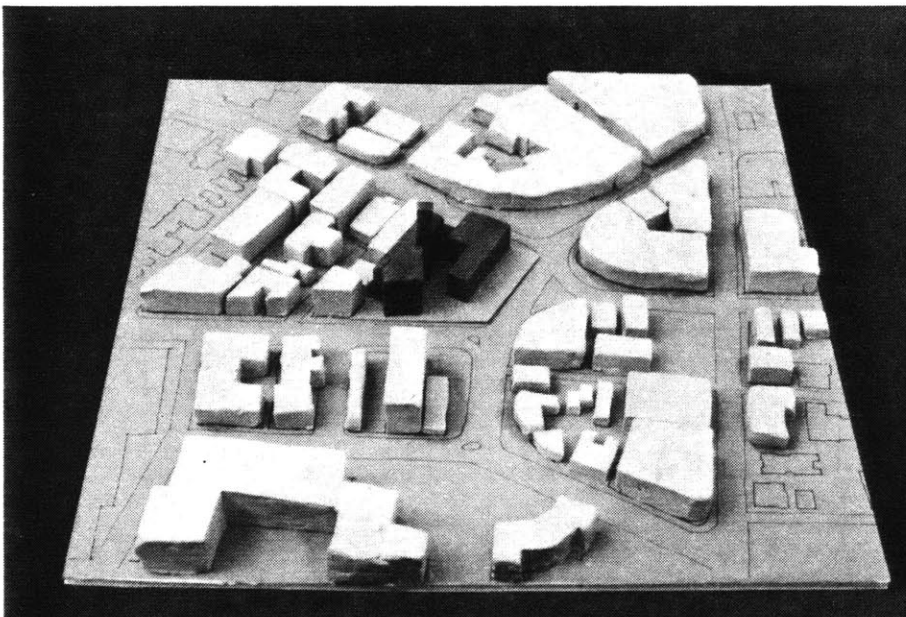


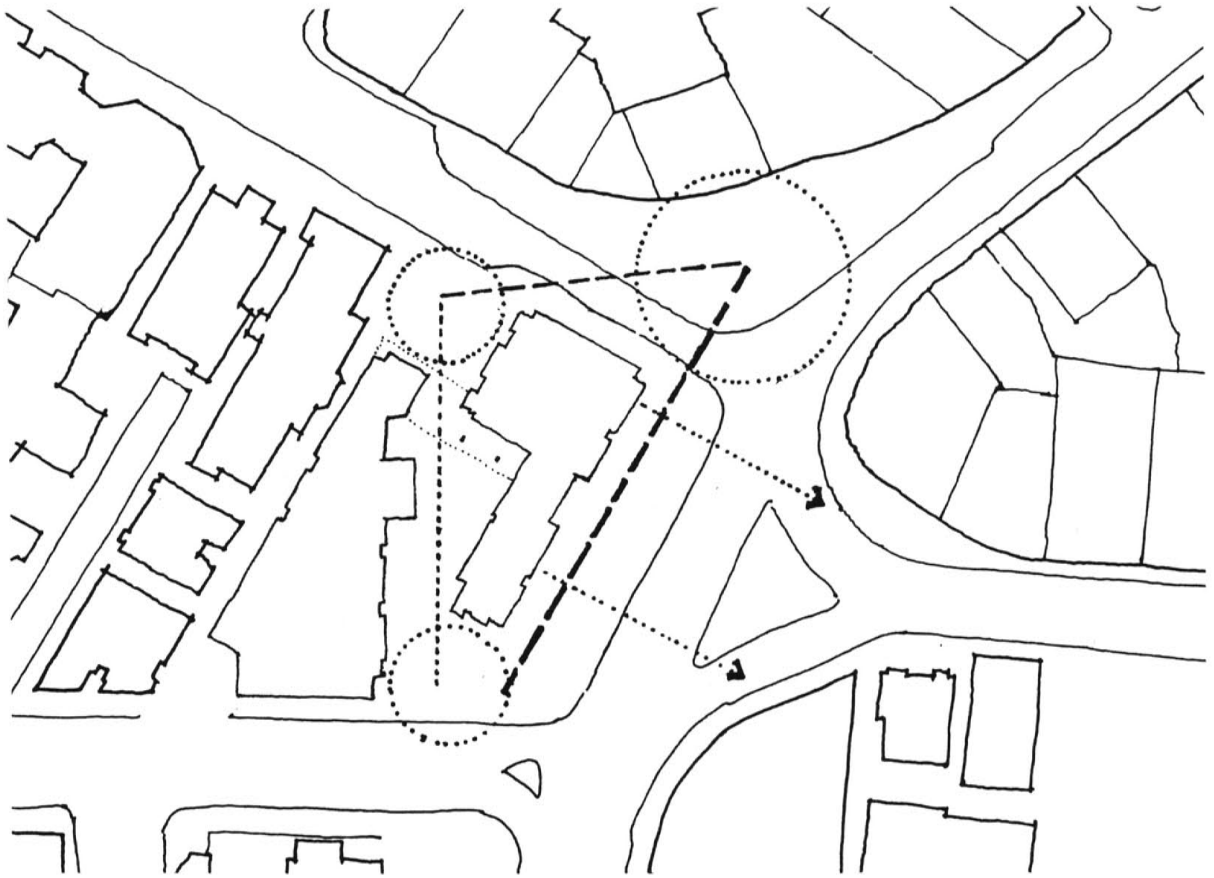
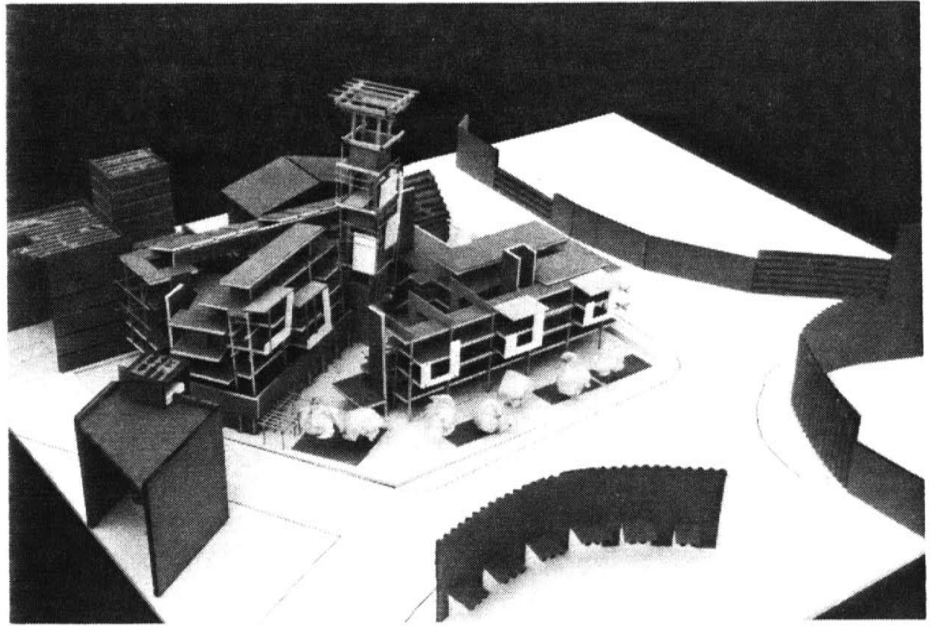
Connection to the River

The form of this building would establish a continuity of access from Harvard Square to the river by using the full dimension of the facade to build the direction change. The promenade from JFK Park to Mt. Auburn Street is fairly well established. The generous dimension of sidewalk extends the promenade into the T-Stop Plaza

The form also establishes a spatial connection between Brattle Street and Winthrop Square, which brings this so that one could be on the corner and understand that he is simultaneously related to both systems.

These relationships would not be apparent if the building curved around the corner, which is the normal thing for a building in Harvard Square to do



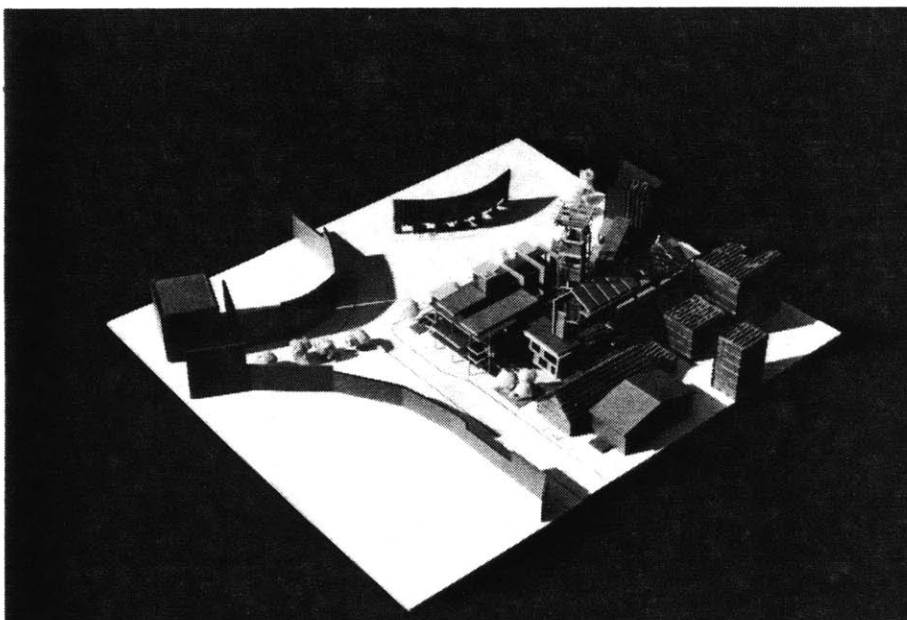


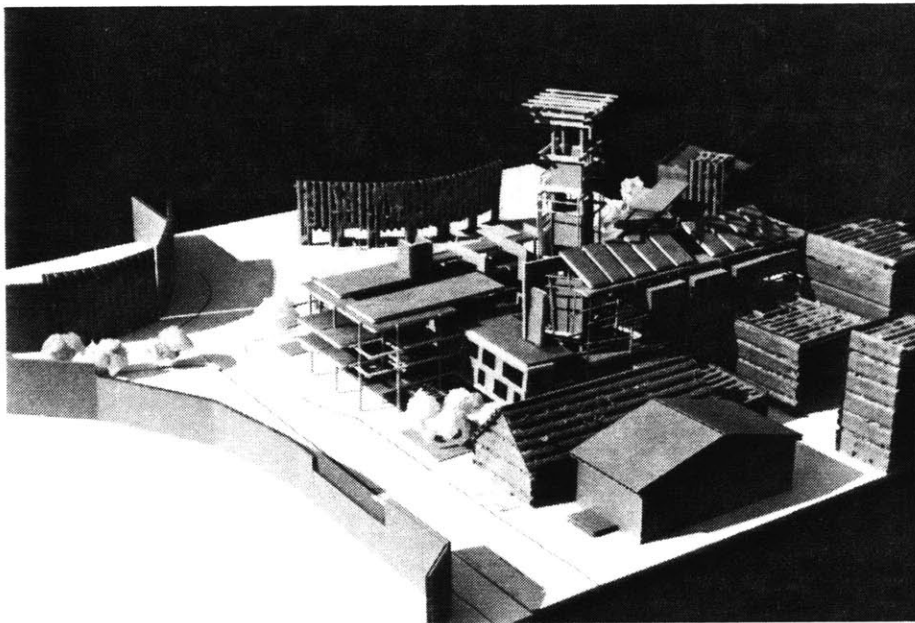
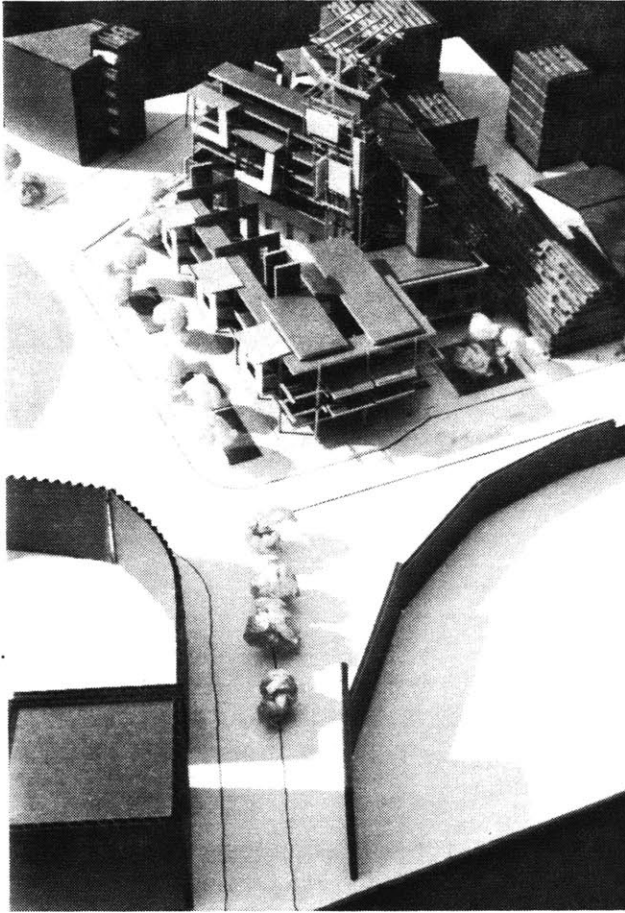


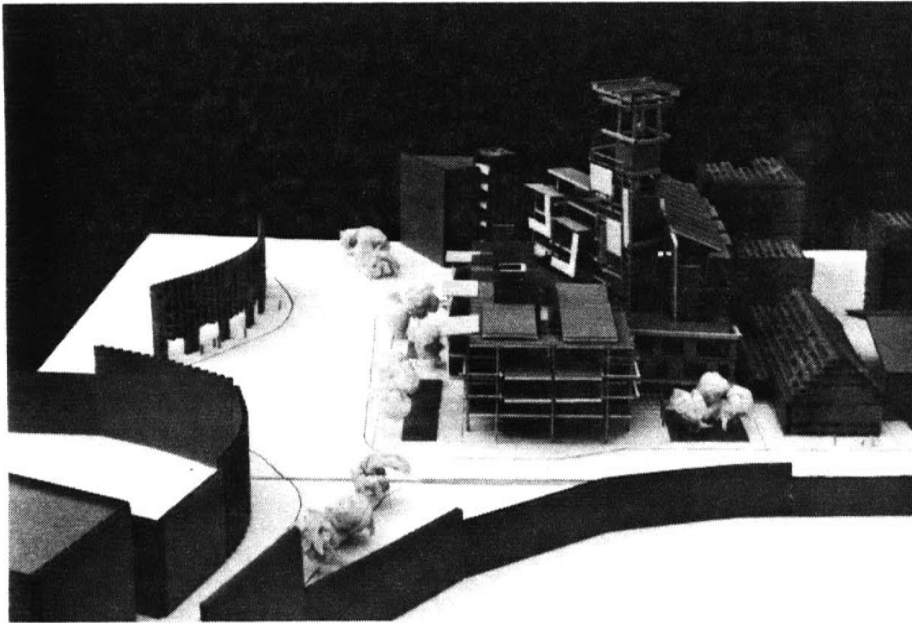
Rebuilding Brattle Square

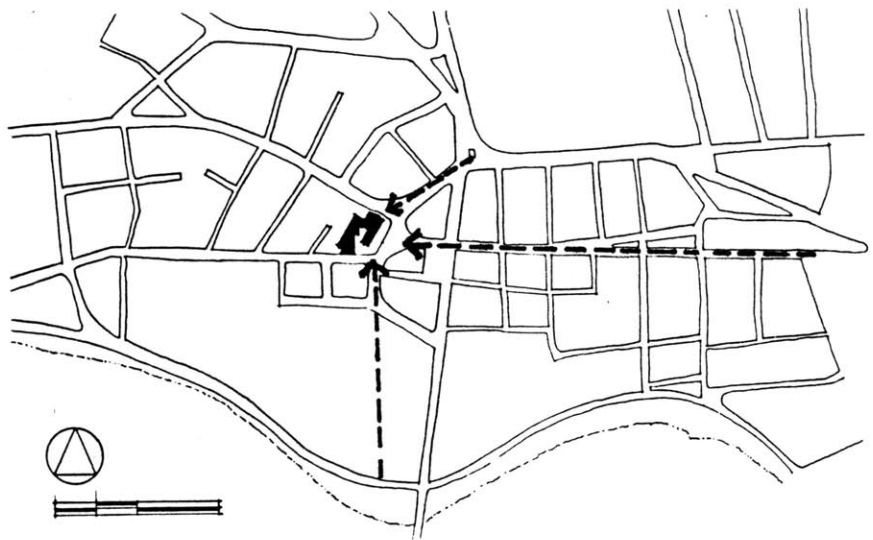
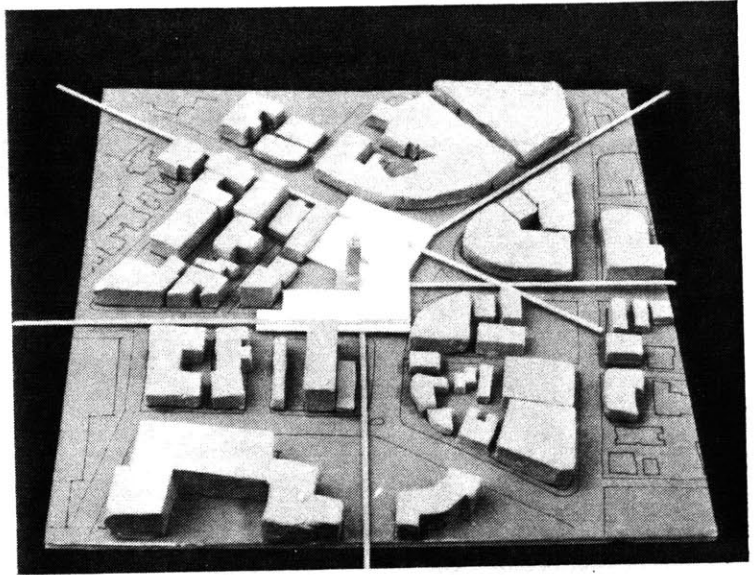
The majority of named squares in Cambridge exist only as signposts at triangular intersections of roads. Brattle Square has been rendered somewhat formless by virtue of the facades all curving away from it in deference to vehicular traffic. The larger than expected size of this building provides a register for the other buildings to move away from. The photos of the model demonstrate that this proposal would make Brattle Square more coherent and identifiable as a space in the following ways.

1. The facade on Brattle Street gives a strong definition to the space of the T-Stop plaza
2. The small plaza of the building is in a dynamic relationship to the T-Stop plaza. This connection gets a similar use across the street.
3. The Elliot Street elevation is large enough provide a reference for the space defined by itself and the two curved buildings.





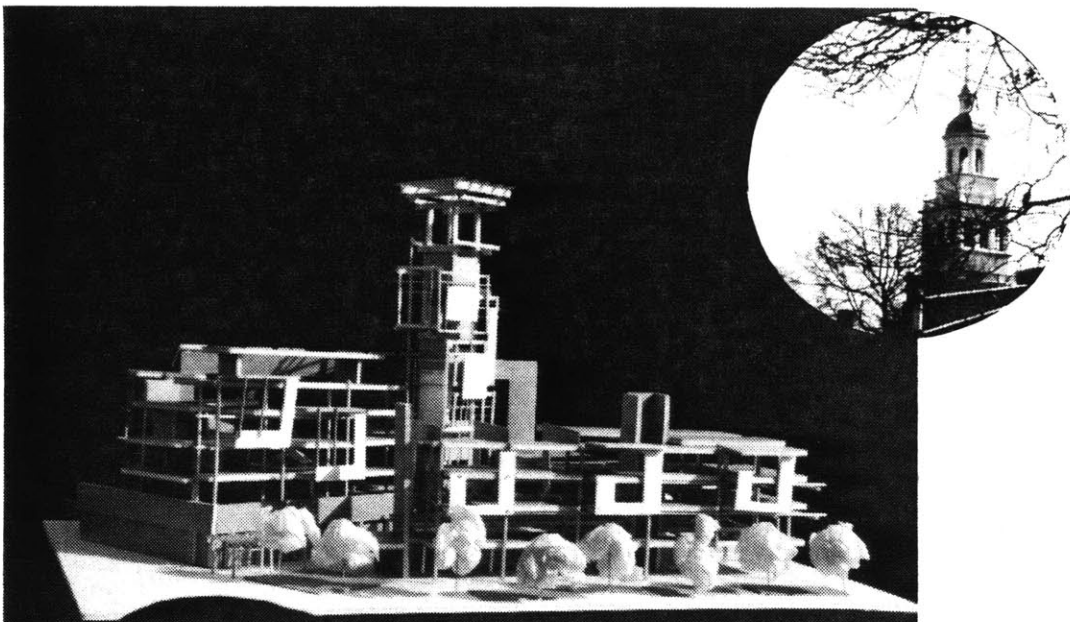


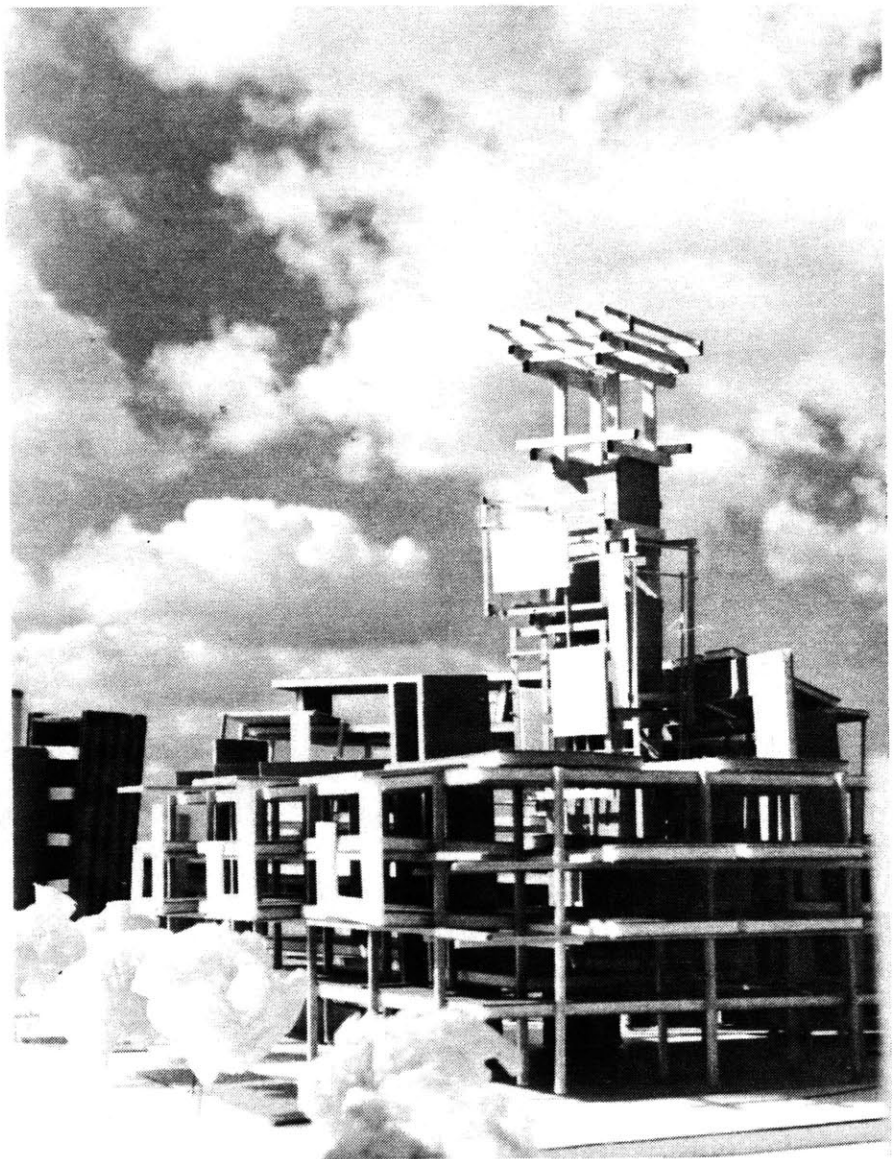


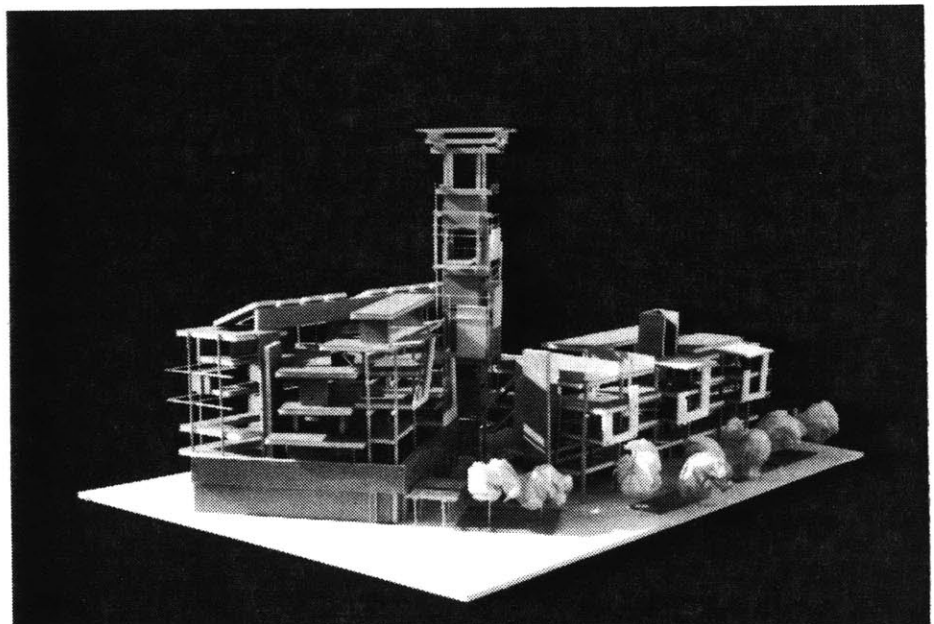
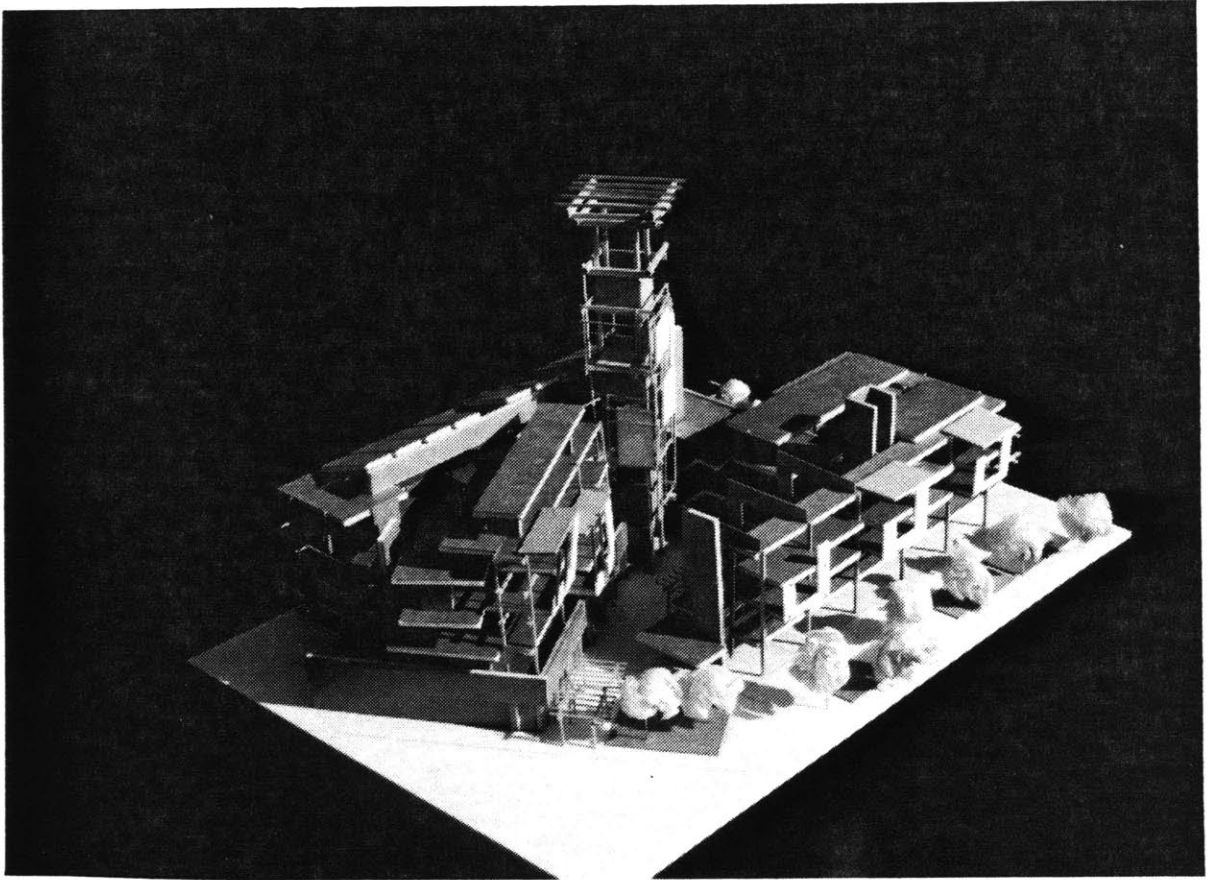
Turnstyle Tower:

The site is a termination for several view corridors. This suggested that the building be larger than the dimensions of adjacent buildings would suggest, and that a strong vertical element could be used to provide an orienting landmark. We have already seen other examples of towers in Harvard Square.

This public tower has viewing places at several levels. It is part of the exhibition space at the ground level.

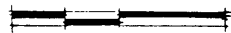
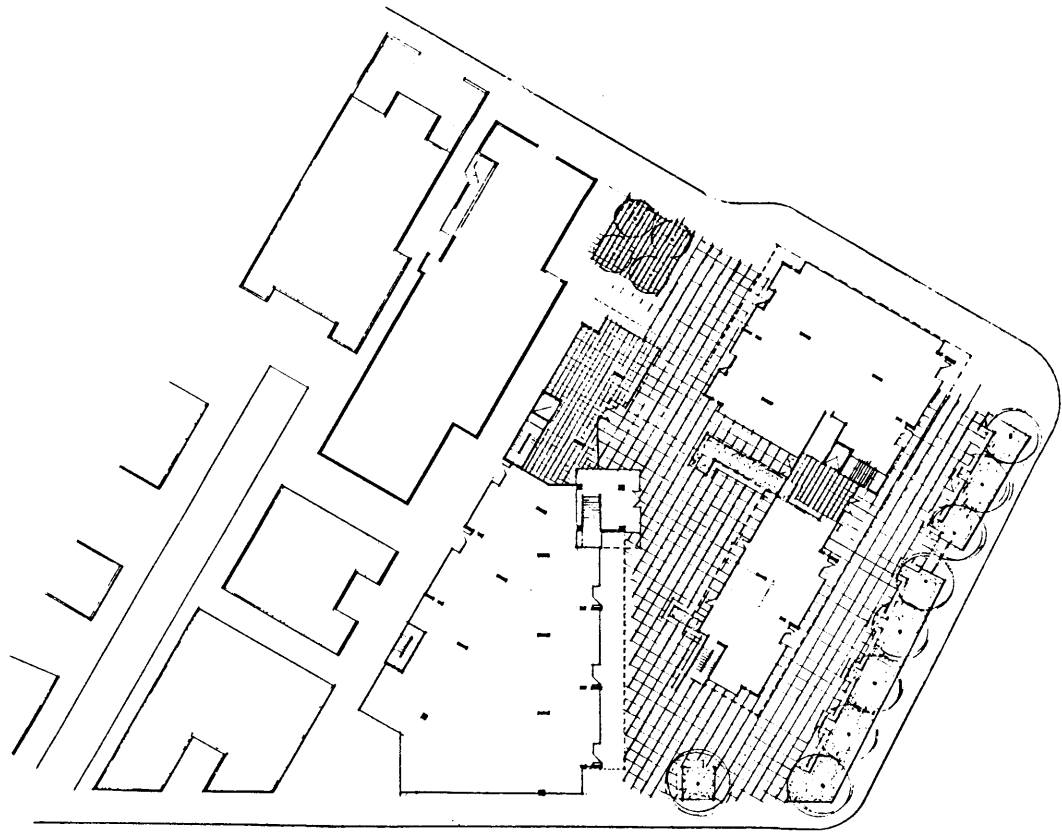


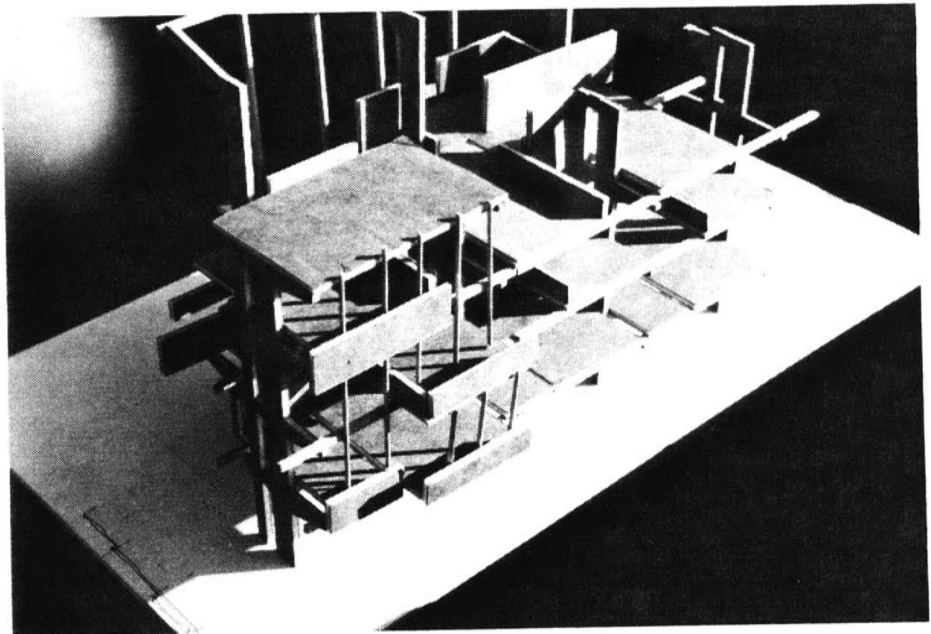
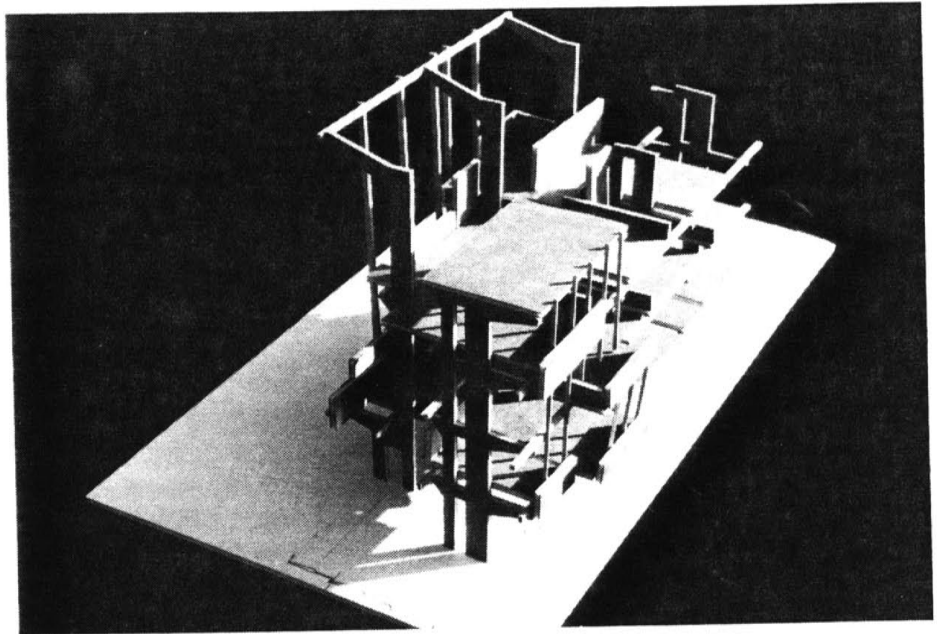




Pedestrian Movement Through the Site.

The Harvard Square area has a rich variety of pedestrian passages that move into the interior of the block. As one moves east on Brattle Street towards Brattle Square some of the buildings alternately step back to define a public space adjacent to the access. This building continues this pattern, but it transforms it because the movement into the site puts one into the system of the space moving towards the river. The ground level is accessible from both the interior passage and Elliot Street. There is a public exhibit space which includes the tower. Trees and Trellises transform the light as one moves into the space of the building.





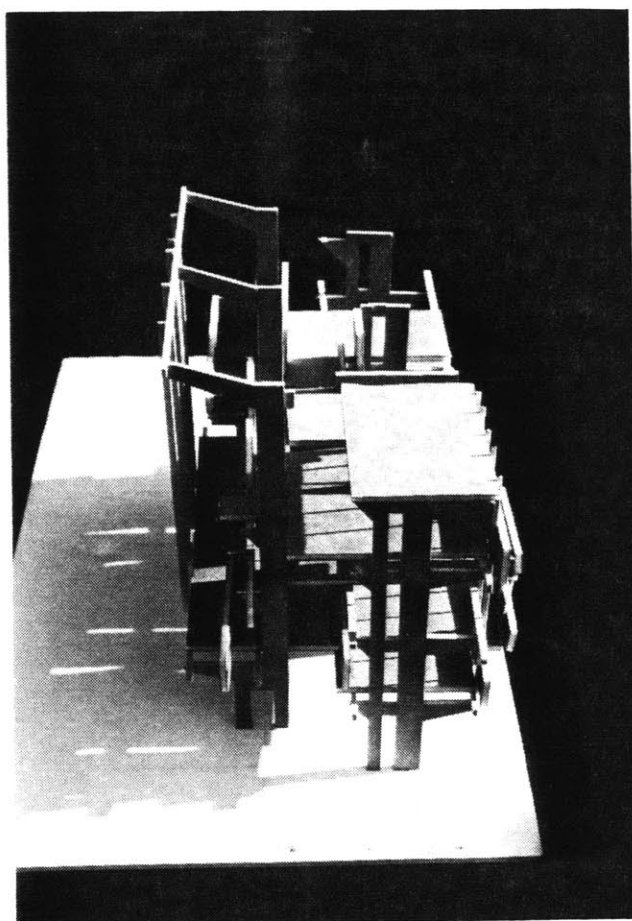
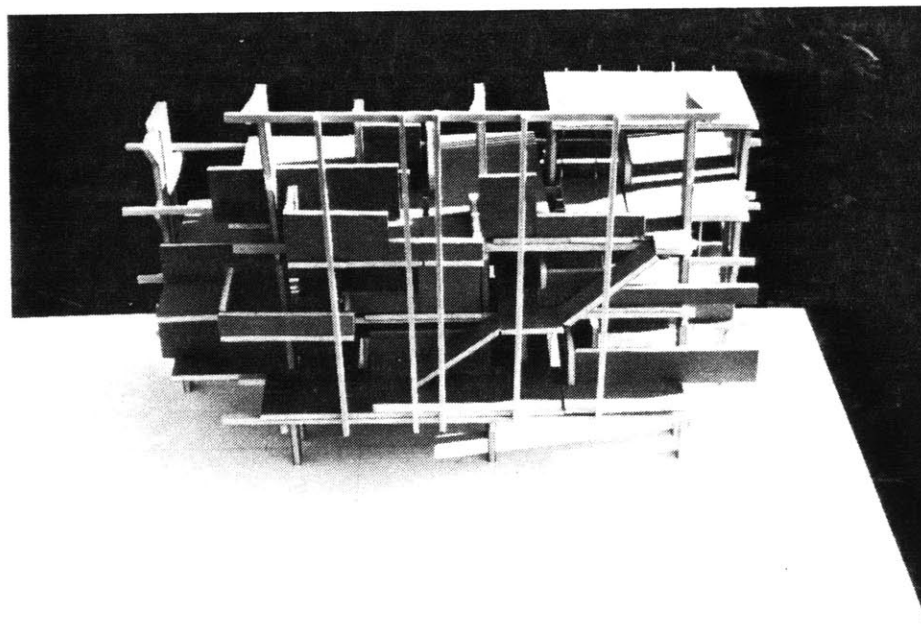
The Building Edge as Scaffolding

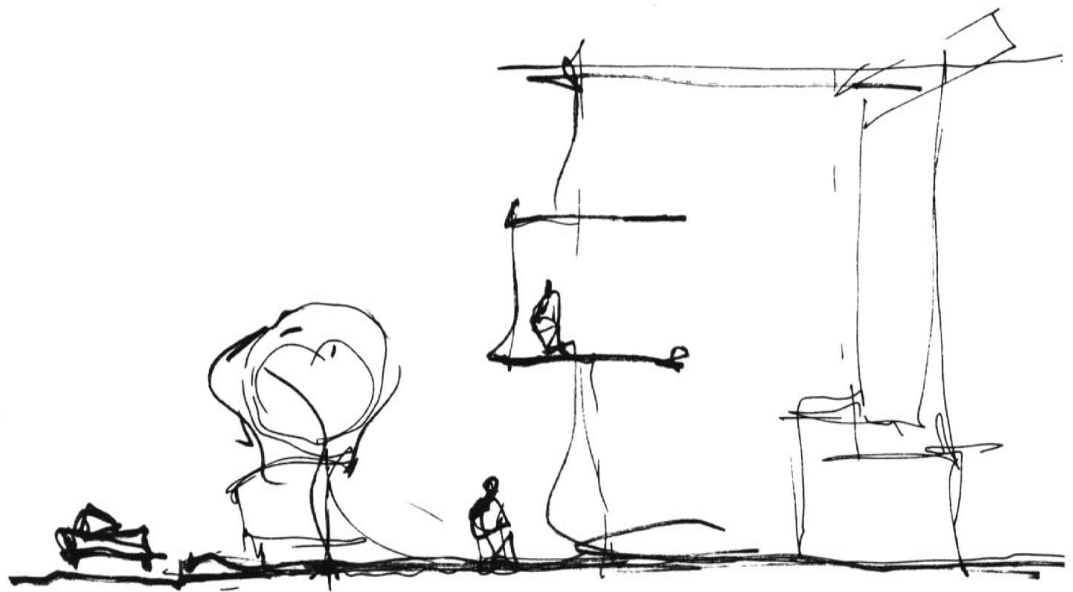
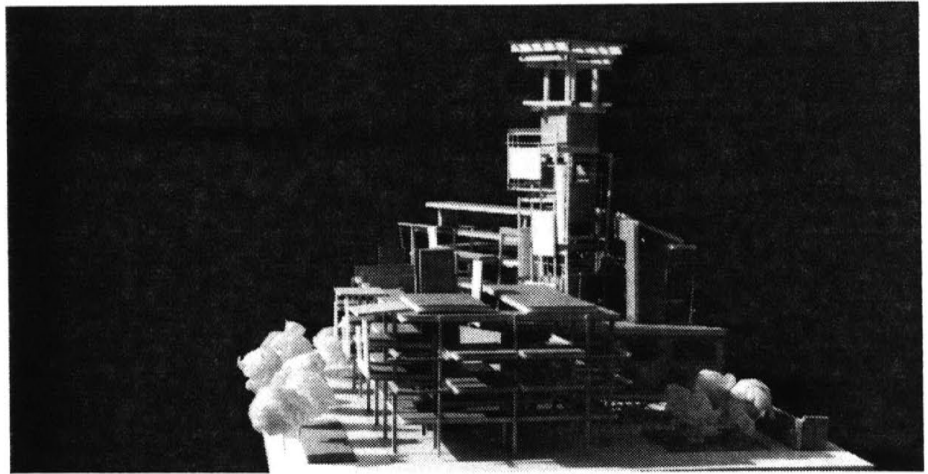
Much of this investigation focused on how the urban considerations would affect the design of the building. The design also responded to the unique possibility of an institution that wanted its life to be inside, and part of the life of the city. The edge of the building then became not a boundary, but a connection to the city. The notion of a scaffolding seemed appropriate, because it suggested that one could step from inside the building to a zone of space and light that is comprehensible as an entity that is the entire facade. A system of two story vertical spaces that are offset generate diagonal spaces that extend vertically three or four floors.

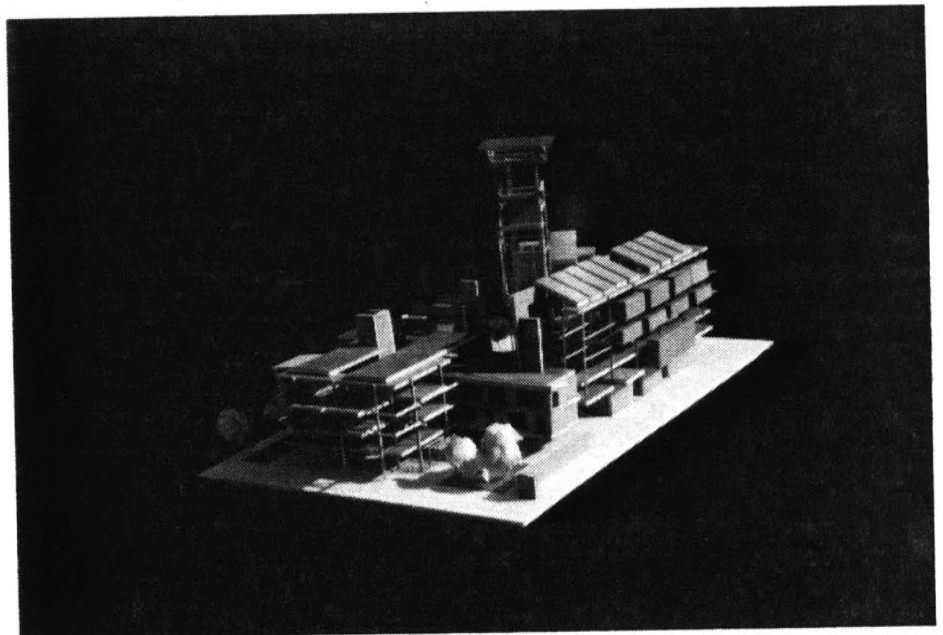
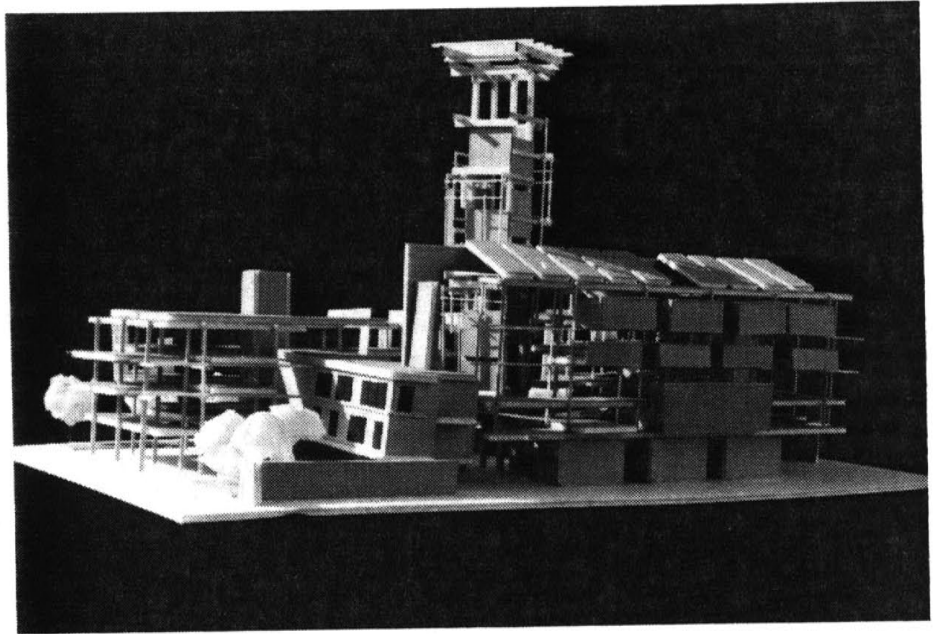
On the alley side of the building the scaffolding is inhabited by more box-like containments which serve as conference rooms, services, and other low light activities.

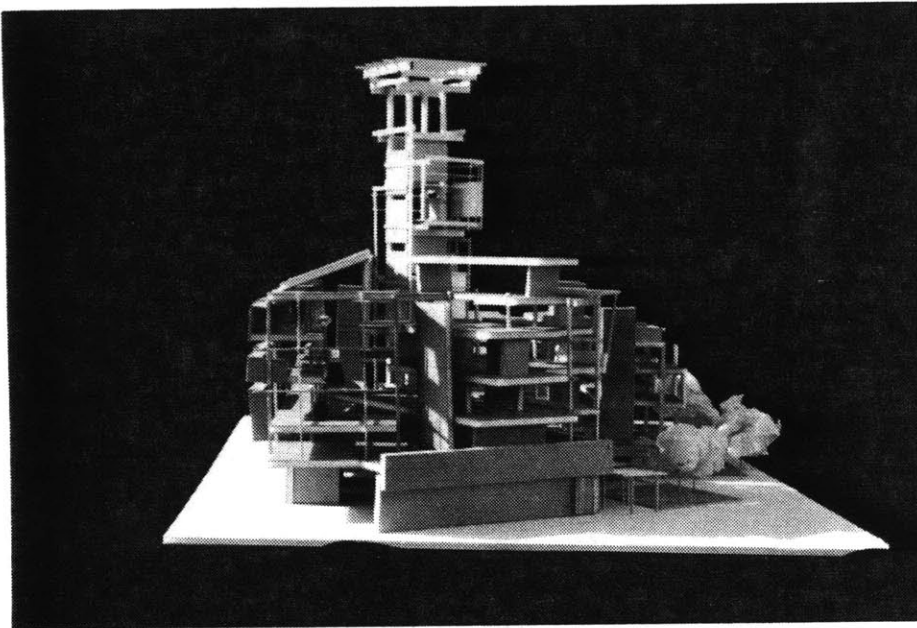
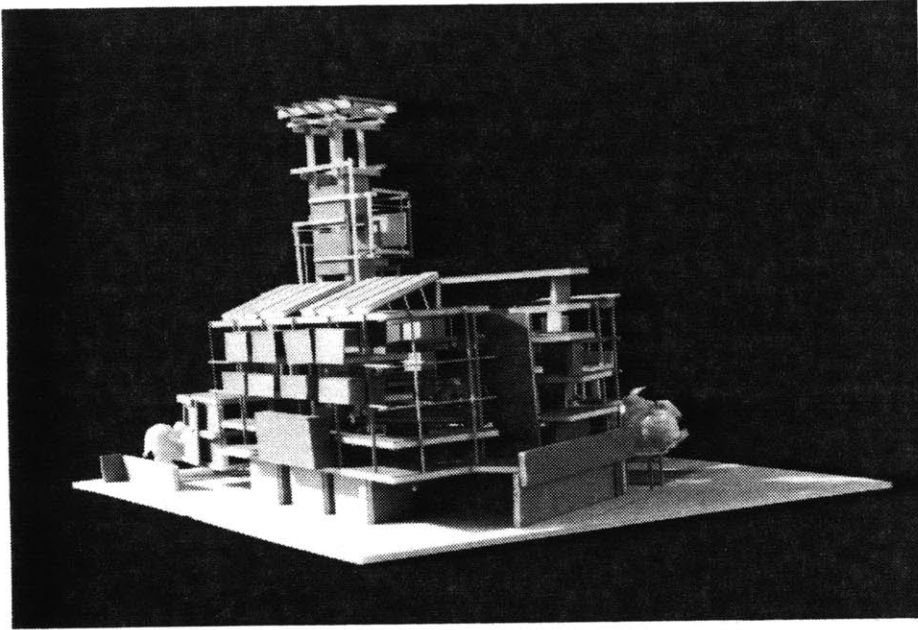
The frames establish a register of space which the floors can cantilever out from.

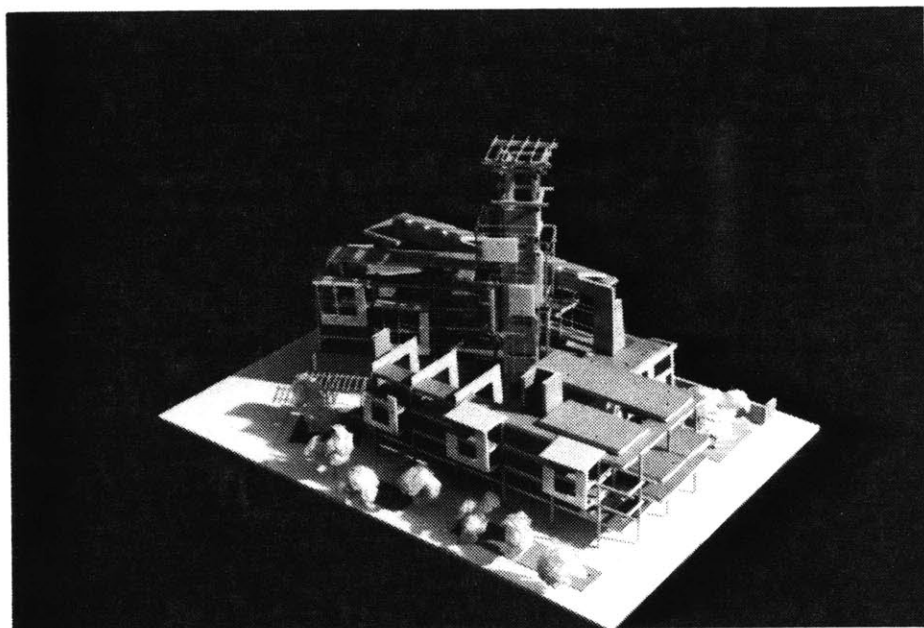
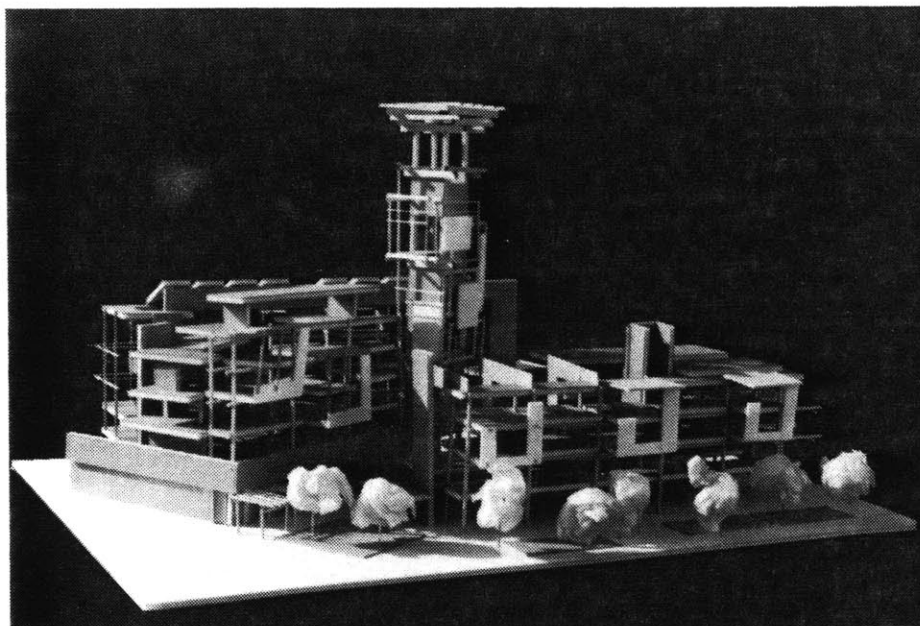
At the urban scale the scaffolding behaves as an urban wall, building directions, and containing the street space, but at the scale of the building its behavior is transformed











INVESTIGATION: Models and Drawing

